OBSTETRIC UNIT

UNIVERSITY COLLEGE HOSPITAL

NOT TO BE TAKEN AWAY

The
Central Medical Book Stores
4, HANWAY STREET,
OXFORD STREET, W.

—o—

The *real* HENRY KIMPTON, *Manager*.

—o—

New Books supplied at 3d. in the shilling discount.

Second-hand Books at common-sense prices

English and Foreign Periodicals *punctually* supplied.

Books lent to read. Binding in any style.
Books bought in any quantity.

Libraries valued for Probate or otherwise.

Dissecting Cases new and second-hand.

Human Skeletons, &c., on sale or hire.

ONLY ADDRESS :—

KIMPTON, HANWAY STREET.

SHL
WITHDRAWN

Digitized by the Internet Archive
in 2026

https://archive.org/details/transactions-of-the-obstetrical-society-of-london_1884_26_1

The Library
University College Obstetric Hospital
from
Sanborn Offices

OBSTETRICAL TRANSACTIONS.

VOL. XXVI.

TRANSACTIONS

OF THE

OBSTETRICAL SOCIETY

OF

LONDON.

VOL. XXVI.

FOR THE YEAR 1884.

WITH A LIST OF OFFICERS, FELLOWS, ETC.

LONDON:
LONGMANS, GREEN, AND CO.
1885.

PRINTED BY J. E. ADLARD, BARTHOLOMEW CLOSE.

OBSTETRICAL SOCIETY OF LONDON.

OFFICERS FOR 1885.

ELECTED FEBRUARY 4TH, 1885.

HONORARY PRESIDENT.	FARRE, ARTHUR, M.D., F.R.S.
PRESIDENT.	POTTER, JOHN BAPTISTE, M.D.
VICE-PRESIDENTS.	BLACK, JAMES WATT, M.D. BURCHELL, PETER LODWICK, M.B. DALY, FREDERICK HENRY, M.D. DAY, WILLIAM HENRY, M.D. MALINS, EDWARD, M.D. (Birmingham). WORSHIP, J. LUCAS (Sevenoaks).
TREASURER.	GALABIN, ALFRED LEWIS, M.A., M.D.
HONORARY SECRETARIES.	HERMAN, GEORGE ERNEST, M.B. CHAMPNEYS, FRANCIS HENRY, M.A., M.B.
HONORARY LIBRARIAN.	THORNTON, JOHN KNOWSLEY, M.B., C.M.
CHAIRMAN OF THE BOARD FOR THE EXAMINATION OF MIDWIVES.	WILLIAMS, JOHN, M.D.
HONORARY MEMBERS OF COUNCIL.	OLDHAM, HENRY, M.D. (*Trustee*). BARNES, ROBERT, M.D. (*Trustee*). HEWITT, GRAILY, M.D. HICKS, JOHN BRAXTON, M.D., F.R.S. TILT, EDWARD JOHN, M.D. PRIESTLEY, WILLIAM O., M.D. WEST, CHARLES, M.D. GERVIS, HENRY, M.D. WELLS, SIR THOS. SPENCER, BART. (*Trustee*).
OTHER MEMBERS OF COUNCIL.	BOULTON, PERCY, M.D. CORY, ROBERT, M.D. CULLINGWORTH, C. J., M.D. (Manchester). DORAN, ALBAN. DUNCAN, WILLIAM A., M.D. FARR, GEORGE F. GIBBINGS, ALFRED THOMAS, M.D. GRIFFITH, JOHN T., M.D. HALLOWES, FREDERICK B. (Redhill). JACKSON, ROBERT, M.D. KEELE, GEORGE THOMAS. LAWRENCE, ALFRED E. A., M.D. (Bristol). MURRAY, GUSTAVUS CHARLES P., M.D. PLAYFAIR, WILLIAM S., M.D. ROPER, GEORGE, M.D. THORBURN, JOHN, M.D. (Manchester). WALLACE, JOHN, M.D. (Liverpool). WALTERS, JAMES HOPKINS, (Reading).

LIST OF PAST PRESIDENTS OF THE SOCIETY.

1859 EDWARD RIGBY, M.D.
1861 WILLIAM TYLER SMITH, M.D.
1863 HENRY OLDHAM, M.D.
1865 ROBERT BARNES, M.D.
1867 JOHN HALL DAVIS, M.D.
1869 GRAILY HEWITT, M.D.
1871 JOHN BRAXTON HICKS, M.D., F.R.S.
1873 EDWARD JOHN TILT, M.D.
1875 WILLIAM OVEREND PRIESTLEY, M.D.
1877 CHARLES WEST, M.D.
1879 WILLIAM S. PLAYFAIR, M.D.
1881 J. MATTHEWS DUNCAN, M.D., F.R.S.
1883 HENRY GERVIS, M.D.

REFEREES OF PAPERS FOR THE YEAR 1885

Appointed by the Council.

DUNCAN, JAMES MATTHEWS, M.D., F.R.S.
EDIS, ARTHUR W., M.D.
GALABIN, ALFRED LEWIS, M.A., M.D.
GERVIS, HENRY, M.D.
GODSON, CLEMENT, M.D.
HEWITT, GRAILY, M.D.
HICKS, JOHN BRAXTON, M.D., F.R.S.
LEISHMAN, WILLIAM, M.D., Glasgow.
MALINS, EDWARD, M.D., Birmingham.
MURRAY, GUSTAVUS CHARLES P., M.D.
PLAYFAIR, WILLIAM S., M.D.
PRIESTLEY, WILLIAM O., M.D.
ROPER, GEORGE, M.D.
STEPHENSON, WILLIAM, M.D., Aberdeen.
THORBURN, JOHN, M.D., Manchester.
THORNTON, J. KNOWSLEY, M.B., C.M.
WELLS, Sir T. SPENCER, Bart., F.R.C.S.
WILLIAMS, JOHN, M.D.

STANDING COMMITTEES.

BOARD FOR THE EXAMINATION OF MIDWIVES.

CHAIRMAN. WILLIAMS, JOHN, M.D.

BURCHELL, PETER LODWICK, M.B.
GODSON, CLEMENT, M.D.
ROPER, GEORGE, M.D.

EX-OFFICIO. HERMAN, G. ERNEST, M.B., *Hon. Sec.*
CHAMPNEYS, FRANCIS HENRY, M.B., *Hon. Sec.*

LIBRARY COMMITTEE.

DORAN, ALBAN.
DUNCAN, J. MATTHEWS, M.D., F.R.S.
DUNCAN, WILLIAM A., M.D.
EDIS, ARTHUR W., M.D.
WILLIAMS, JOHN, M.D.

EX-OFFICIO. POTTER, JOHN BAPTISTE, M.D., *President.*
GALABIN, ALFRED LEWIS, M.D., *Treasurer.*
HERMAN, G. ERNEST, M.B., } *Hon. Secs.*
CHAMPNEYS, FRANCIS HENRY, M.A., M.B. } *Hon. Secs.*
THORNTON, J. KNOWSLEY, M.B., *Hon. Lib.*

HONORARY LOCAL SECRETARIES.

Jones, Evan	Aberdare.
Bartrum, John S., F.R.C.S.	Bath.
Corry, Thomas C. S., M.D.	Belfast.
Savage, Thomas, M.D.	Birmingham
Salzmann, Frederick William	Brighton.
Swayne, Joseph Griffiths, M.D.	Bristol.
Carlyle, David, M.D.	Carlisle.
Batten, Rayner W., M.D.	Gloucester.
Clark, James Fenn	Leamington.
Braithwaite, James, M.D.	Leeds.
Wallace, John, M.D.	Liverpool.
Roberts, David Lloyd, M.D.	Manchester.
Jackson, Edward, M.B.	Newcastle-on-Tyne.
Elder, George, M.D., C.M.	Nottingham.
Walker, Thomas James, M.D.	Peterborough.
Eyeley, Joseph Frederick, L.R.C.P.	Plymouth.
Harrinson, Isaac, Esq., F.R.C.S.	Reading.
Wilson, Robert James, F.R.C.P. Ed	St. Leonard's.
Taylor, John W., M.D.	Scarborough.
Keeling, James Hurd, M.D.	Sheffield.
Burd, Edward, M.D., C.M	Shrewsbury.
Murphy, James, M.D.	Sunderland.
Fowler, James	Wakefield.
Harris, William John	Worthing.
Harvey, Robert, M.D.	Calcutta.
Branfoot, Arthur Mudge, M.B.	Madras.
Perrigo, James, M.D.	Montreal, Canada.
Temple, James Algernon, M.D.	Toronto, Canada West.
Anderson, Izett W., M.D.	Jamaica.
Takaki, Kanaheiro, F.R.C.S.	Japan.

OBSTETRICAL SOCIETY OF LONDON.

TRUSTEES OF THE SOCIETY'S PROPERTY.

HENRY OLDHAM, M.D.
ROBERT BARNES, M.D.
Sir THOMAS SPENCER WELLS, Bart.

HONORARY FELLOWS.

BRITISH SUBJECTS.

Elected

1862 DUNCAN, JAMES MATTHEWS, M.D., A.M., LL.D., F.R.S. Physician-Accoucheur to, and Lecturer on Midwifery and Diseases of Women and Children at, St. Bartholomew's Hospital ; 71, Brook street, Grosvenor square, W. *Council*, 1878-80. *Pres.* 1881-82. *Trans.* 14.

1870 FARRE, ARTHUR, M.D., F.R.S. (HON. PRES.), Physician-Accoucheur to H.R.H. the Princess of Wales ; 18, Albert Mansions, Victoria street, Westminster. *Trans.* 1.

1871 KEILLER, ALEXANDER, M.D., F.R.S. Ed., Physician to the Royal Maternity Hospital, Lecturer on Midwifery and Diseases of Women and Children at Surgeons' Hall, Edinburgh ; 21, Queen Street, Edinburgh.

1871 KIDD, GEORGE H., M.D., F.R.C.S.I., Obstetrical Surgeon to the Coombe Lying-in Hospital, and Examiner in Midwifery at the Queen's University and Royal College of Surgeons of Ireland; 30, Merrion square south, Dublin.

Elected

1870 West, Charles, M.D., F.R.C.P., Corresponding Member of the Academy of Medicine of Paris; 2, Bolton Row, Mayfair, W. *Pres.* 1877-8.

FOREIGN SUBJECTS.

1872 Barker, Fordyce, M.D., Professor of Clinical Midwifery and Diseases of Women at the Bellevue Hospital Medical College, and Obstetric Physician to the Bellevue Hospital; Consulting Physician to the New York State Woman's Hospital, &c.; 85, Madison avenue, New York.

1863 Braun, Carl, M.D., Professor of Midwifery, Vienna.

1875 Courty, Amedée, M.D., Clinical Professor at the Faculty of Medicine of Montpellier.

1863 Faye, F. C., M.D., Professor of Midwifery in the University of Christiania.

1866 Hugenberger, Theodor, M.D., à la Maternité et aux Enfants Trouvés Hôpital des Accouchements, Moscow.

1866 Lazarewitch, J., M.D., Kharkoff, Russia. *Trans.* 3.

1864 Pajot, Ch. M.D., Professor of Midwifery to the Faculty of Medicine, Paris.

1862 Scanzoni, F. W. von, M.D., Professor of Midwifery, Würzburg.

1877 Stoltz, Professor, M.D. Nancy.

1866 Thomas, Abraham Everard Simon, M.D., Leyden.

1872 Thomas, T. Gaillard, M.D., Professor of Obstetrics in the College of Physicians and Surgeons; 296, Fifth avenue, New York.

1862 Virchow, Rudolf, M.D., Professor of Pathological Anatomy in the University of Berlin.

CORRESPONDING FELLOWS.

Elected

1873 Martin, A. E., M.D., Berlin. *Trans.* 1.

1876 Budin, P., M.D., 22, Rue de l'Odéon, Paris. *Trans.* 1.

1876 Chadwick, James R., M.A., M.D., Physician for Diseases of Women, Boston City Hospital; Clarendon street, Boston, Massachusetts, U.S.

1877 Goodell, William, A.M., M.D., Professor of Clinical Gynæcology in the University of Pennsylvania; Philadelphia, Pennsylvania.

1876 Lusk, William J., M.D., Professor of Obstetrics, Bellevue Hospital Medical College; New York.

1876 Prevôt, Oscar, M.D., Moscow.

1877 Storer, Horatio, M.D., Boston, Massachusetts, U.S.A.

ORDINARY FELLOWS.

JANUARY 1885.

Those marked thus (*) have paid the Composition Fee in lieu of further annual subscriptions.

The letters O.F. are prefixed to the names of the "Original Fellows" of the Society.

Elected

1884 ADAMS, THOMAS RUTHERFORD, M.D., Stamford House, 78, St. James's road, Croydon.

1879 ADDIS, PHILIP, L.R.C.P. Ed., Iver, Bucks.

1859 ALDERSEY, William Hugh, M.B. Lond., F.R.C.S., 7, St. James' Road, Surbiton.

1878 ALFORD, FREDERICK STEPHEN, 61, Haverstock hill, N.W.

1883 ALLAN, ROBERT JOHN, L.R.C.P. Ed., 11 & 12, Clement's lane, E.C.

1873 ALLEN, HENRY MARCUS, F.R.C.P. Ed., 20, Regency square, Brighton.

1859 AMSDEN, GEORGE JOHN, M.D., 28, North Villas, Camden Square, N.W.

1878 ANDERSON, IZETT WILLIAM, M.D., 95, Duke street, Kingston, Jamaica. *Trans.* 1. *Hon. Loc. Sec.*

1875 ANDERSON, JOHN FORD, M.D., C.M., 28, Buckland crescent, Belsize park, N.W. *Council*, 1882.

1866 ANDREWS, HENRY CHARLES, M.D., 1, Oakley square, N.W. *Council*, 1882-3.

1859 ANDREWS, JAMES, M.D., Everleigh, Green hill, Hampstead, N.W. *Council*, 1881.

Elected

1884 Appleford, Stephen Herbert, L.R.C.P. Lond., 16, Finsbury circus, E.C.

1870 Appleton, Robert Carlisle, The Bar House, Beverley.

1884 Appleton, Thomas A., 46, Britannia road, Fulham, S.W.

1859 Archer, John, F.R.C.S., 9, Carpenter road, Edgbaston, Birmingham.

1883 Archibald, John, M.B., Lynton House, Brixton Rise, S.W.

1871 Argles, Frank, L.R.C.P. Ed., Hermon Lodge, Wanstead, Essex, N.E.

1861 Armstrong, John, M.D., Green street green, Dartford, Kent.

O.F. Aveling, James H., M.D., Physician to the Chelsea Hospital for Women; 1, Upper Wimpole Street, W. *Council*, 1865-66, 1872, 1884. *Hon. Sec.* 1873. *Hon. Lib.* 1874-6. *Vice-Pres.* 1877-8. *Trans.* 9.

1872 Ayling, Arthur H. W., 94a, Great Portland street, W.

1880 Bailey, Francis James, 51, Grove Street, Liverpool.

1873 Bailey, James Johnson, M.D., F.R.C.S. Ed., Woodville Cottage, Marple, Cheshire.

1877 Baker, Albert de Winter, 2, Lawn terrace, Dawlish, Devon.

1876 Baker, John Penning, 6, York place, Portman square, W.

1880 Balls-Headley, Walter, M.D., 186, Collins street east, Melbourne, Victoria.

1869 Bantock, George Granville, M.D., Surgeon to the Samaritan Free Hospital; 12, Granville place, Portman square, W. *Council*, 1874-6. *Trans.* 2.

O.F. Barnes, Robert, M.D., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery at, St. George's Hospital; 15, Harley street, Cavendish square, W. *Vice-Pres.* 1859-60. *Council*, 1861-62, 1867. *Treas.* 1863-64. *Pres.* 1865-66. *Trans.* 32. *Trustee.*

1875 Barnes, R. S. Fancourt, M.D., Physician to the British Lying-in Hospital; Assistant Obstetric Physician to the Great Northern Hospital; Physician to the Chelsea Hospital for Women; Physician to the Royal Maternity Charity; 7, Queen Anne street, Cavendish square, W. *Council*, 1879-81. *Trans.* 2.

Elected

1877 Barnes, Thomas Henry, M.D., 54, London road, Croydon.

1884 Barraclough, Robert W. S., M.D., 34, Dulwich road, Herne hill, S.W.

1861* Bartrum, John S., F.R.C.S., Surgeon to the Bath General Hospital; 13, Gay street, Bath. *Hon. Loc. Sec. Council*, 1877-9.

1866 Bassett, John, M.D., Professor of Midwifery at the Queen's College, Birmingham; 144, Hockley Hill, Birmingham. *Council*, 1874-6. *Vice.-Pres.* 1880-2. *Trans.* 3.

1873 Bate, George Paddock, M.D., 412, Bethnal Green road, E; and 2, Northumberland Houses, King Edward road, Hackney. *Council*, 1882-4.

1867 Batten, Rayner W., M.D., Physician to the Gloucester General Infirmary; 1, Brunswick square, Gloucester. *Hon. Loc. Sec.*

1871 Beach, Fletcher, M.B., Darenth Asylum, Dartford, Kent.

1871 Beadles, Arthur, Park House, Dartmouth Park, Forest hill, S.E.

1866 Belcher, Henry, M.D.,; 12, Pavilion parade, Brighton.

1871 Bell, Robert, M.D. Glasg., 29, Lynedoch street, Glasgow.

1880 Benington, Robert Crewdson, 108, Denmark hill, S.E.

1873* Bennet, James Henry, M.D., The Ferns, Weybridge, and Mentone. *Council*, 1881-3. *Trans.* 1.

O.F. Berry, Samuel, F.R.C.S., Consulting Surgeon-Accoucheur to the Queen's Hospital, and Professor of Midwifery and the Diseases of Women and Children in the Queen's College, Birmingham; Hatfield, Cavendish road, Clapham park, S.W. *Vice-Pres.* 1859. *Trans.* 1.

1883 Bertolacci, J. Hewetson, Varden House, St. John's hill, New Wandsworth, S.W.

1879 Biggs, J. M., 6, Sunnyside villas, Child's hill, Hendon, N.W.

1878 Bindon, Wm. John Vereker, M.D., D.Sc., F.R.C.S. Ed. (Travelling).

1868 Black, James Watt, M.D., Obstetric Physician to the Charing Cross Hospital; 15, Clarges street, Piccadilly, W. *Council*, 1872-4. *Vice-Pres.* 1885.

Elected

1880 Black, Robert Francis, L.R.C.P. Ed., Examiner in Midwifery, Trinidad Medical Board; 4, Chacon street, Port of Spain, Trinidad.

1861* Blake, Thomas William, Hurstbourne, Bournemouth, Hants.

1872 Bland, George, Surgeon to the Macclesfield Infirmary; Park Green, Macclesfield.

1883 Bonney, William Augustus, M.D., 145, Beaufort street, Chelsea, S.W.

1882 Bonsall, George R. Edleston, L.R.C.P. Ed., Alexandra Villa, Elthorne road, Hornsey rise, N.

1872 Bosworth, John Routledge, Grove End, Sutton, Surrey.

1866 Boulton, Percy, M.D., Physician to the Samaritan Free Hospital; Obstetric Physician to Out-Patients, Queen Charlotte's Lying-in Hospital; 6, Seymour street, Portman square, W. *Council*, 1878-80, 1885. *Trans.* 3.

1877 Bowkett, Thomas Edward, 145, East India Road, Poplar, E.

1884 Boxall, Robert, M.D., General Lying-in Hospital, York road, S.E.

1884 Boys, Arthur Henry, L.R.C.P. Ed., Lodway Villa, Pill, Bristol.

1877 Bradley, Michael McWilliams, M.B., Jarrow-on-Tyne.

1873 Braithwaite, James, M.D., Lecturer on Midwifery and Diseases of Women and Children at the Leeds School of Medicine; Assistant Surgeon to the Leeds Hospital for Women and Children; 16, Clarendon road, Little Woodhouse, Leeds. *Vice-Pres.* 1877-9. *Trans.* 3. *Hon. Loc. Sec.*

1880 Branfoot, Arthur Mudge, M.B., Superintendent of the Government Lying-in Hospital, Madras, and Professor of Midwifery and Diseases of Women and Children in the Madras Medical College, Pantheon road, Madras. *Hon. Loc. Sec.*

1875 Brewer, Alexander Hampton, 201, Queen's road, Dalston, E. *Trans.* 1.

Elected

1862 Brickwell, John, Sawbridgeworth, Herts.

1872 Bridgwater, Thomas, M.B., Harrow-on-the-Hill, N.W. *Council*, 1884.

1864 Bright, John Meaburn, M.D., Alvaston, Park hill, Forest hill, S.E. *Council*, 1873-74.

1869 Brisbane, James, M.D., 21, Park road, Regent's park, N.W.

1866 Brodie, George B., M.D., Consulting Physician-Accoucheur to Queen Charlotte's Lying-in Hospital; 3, Chesterfield street, Mayfair, W. *Council*, 1873-75.

1876 Brookhouse, Charles Turing, M.D., 43, Manor road, Brockley, S.E.

1868 Brown, Andrew, M.D. St. And., 1, Bartholomew road, Kentish town, N.W. *Trans.* 1.

1865 Brown, D. Dyce, M.D., 29, Seymour Street, Portman square, W.

1866 Brown, George Dransfield, Henley villa, Uxbridge road, Ealing, Middlesex.

1878 Browning, Benjamin.

1876 Brunjes, Martin, 9, York street, Portman square, W.

1865 Brunton, John, M.D., M.A., Surgeon to the Royal Maternity Charity; 21, Euston road, N.W. *Council*, 1871-3. *Vice-Pres.* 1882-4. *Trans.* 6.

1863 Bryant, Thomas, F.R.C.S., Surgeon to Guy's Hospital; 53, Upper Brook street, W. *Council*, 1866-67. *Trans.* 2.

O.F. Bryant, Walter John, F.R.C.S., M.R.C.P. Ed., 23a, Sussex square, Hyde park gardens, W. *Council*, 1859.

1870 Buck, Joseph Randle, L.R.C.P. Ed., 26, Sidbury, Worcester.

1883 Buksh, Raheem, London Hospital, E.

1882* Buller, Audley Cecil, 10, Grafton street, Fitzroy square, W.

1878 Buncombe, J. Dobree, Victoria West, Cape Colony.

Elected

1861 Bunny, Joseph, M.D., Hon. Surgeon to the Newbury Dispensary ; Northbrook street, Newbury, Berks.

1877 Burchell, Peter Lodwick, M.B., Surgeon-Accoucheur to the City of London Lying-in Hospital ; 2, Kingsland road, E. *Council*, 1882-4. *Vice-Pres.* 1885. *Trans.* 1.

1877 Burd, Edward, M.D., M.C., Senior Physician to the Salop Infirmary ; Newport House, Shrewsbury. *Hon. Loc. Sec.*

1878 Burn, Stacey Southerdon, M.B. Oxon., Tudor Lodge, Richmond, Surrey.

1862 Burton, John Moulden, F.R.C.S., Lee park lodge, Lee, Kent, S.E. *Council*, 1868-69.

1878 Butler-Smythe, Albert Charles, M.R.C.P. Edin., 35, Brook street, Grosvenor square, W.

1868 Butt, William Frederick, L.R.C.P. Lond., 25, Park street, Park lane, W. *Council*, 1876-78.

1883 Caldwell, William T. D., M.D., 284, Kennington park road, S.E.

1883 Cameron, Charles Hamilton Hone, L.R.C.P. Lond., Lochiel, Harlesden, Willesden, N.W.

1861 Candlish, Henry, M.D., Physician to the Alnwick Infirmary ; 26, Fenkle street, Alnwick, Northumberland.

1861 Candy, John, M.D., Surgeon-Major, Army Medical Department. [Messrs. Wm. Watson & Co., Anglo-Indian Agency, 27, Leadenhall street, E.C.]

1863 Carlyle, David, M.D., 2, The Crescent, Carlisle. *Trans.* 1 *Hon. Loc. Sec.*

1872 Carter, Charles Henry, M.D., Physician to the Hospital for Women ; 45, Great Cumberland place, Hyde Park, W. *Council*, 1880-2. *Trans.* 4.

1877 Carver, Eustace John, Fairlawn, 635, Fulham road, S.W.

1869 Caskie, John Boyd, M.D., 19, Tyndale place, Islington, N.

Elected

1878 Caskie, William Alex., M.A., M.B., Manse Court, 17, Main street, Largs, Ayrshire, N. B.

1863 Cayzer, Thomas, Mayfield, Aigburth, Liverpool.

1875 Chaffers, Edward, F.R.C.S., 54, North street, Keighley, Yorkshire.

1873 Chalmers, John, M.D., 43, Caledonian road, N.

1876 Champneys, Francis Henry, M.A., M.B.Oxon., F.R.C.P., Assistant Obstetric Physician to St. George's Hospital, 60, Great Cumberland place, W. *Council*, 1880-1. *Hon. Lib.* 1882-3. *Hon. Sec.* 1884-5. *Trans.* 5.

1859 Chance, Edward John, F.R.C.S., Surgeon to the Metropolitan Free Hospital and City Orthopædic Hospital; 59, Old Broad street, City, E.C.

1867* Charles, T. Edmondstoune, M.D., Cannes, France. *Council*, 1882-4.

1874 Charlesworth, James, 25, Birch terrace, Hanley, Staffordshire.

1868 Child, Edwin, "Vernham," New Malden, Kingston-on-Thames, Surrey.

1883 Childs, Christopher, M.A., M.B. Oxon., 2, Royal terrace, Weymouth.

1863* Chisholm, Edwin, M.D., Abergeldie, Ashfield, near Sydney, New South Wales. [Per Messrs. Turner and Henderson, care of Messrs. W. Dawson, 121, Cannon street, E.C.].

1883 Clapham, Edward, M.D., 29, Lingfield road, Wimbledon.

1859 Claremont, Claude Clarke, Millbrook House, 1, Hampstead road, N.W.

1859 Clark, James Fenn, Clent House, Beauchamp square, Leamington. *Hon. Loc. Soc.*

1879 Clarke, Reginald, South Lodge, Lee park, Lee, S.E.

1872 Clarke, William Michell, late Surgeon to the British General Hospital; 2, York buildings, Clifton, Bristol.

O.F. Clay, Charles, M.D., late Lecturer on Midwifery and Clinical Medicine in St. Mary's Hospital, Manchester; Audenshaw Lodge, Audenshaw; and 101, Piccadilly, Manchester. *Council*, 1863-65. *Trans.* 3.

Elected

1876 Clay, George Langsford, West View, 443, Moseley road, Highgate, Birmingham.

O.F. Clay, John, Professor of Midwifery, Queen's College, Birmingham; Allan House, Steelhouse lane, Birmingham. *Council*, 1868-69. *Vice-Pres.* 1872-4.

O.F. Cleveland, William Frederick, M.D., Stuart villa, 199, Maida vale, W. *Council*, 1863-64. *Vice-Pres.* 1875-77. *Trans.* 1.

1881 Close, James Alex, M.B., Summerfield, St. Clair Co., Illinois, U.S.A.

1865* Coates, Charles, M.D., Physician to the Bath General and Royal United Hospitals; 10, Circus, Bath.

1882 Coates, Frederick William, M.D., St. John street, Salisbury.

1883 Coates, William, 14, Bradshaw street, Moss side, Manchester.

1878 Cockell, Frederick Edgar, Jun., 176, Richmond road, Dalston, E.

1875 Coffin, Richard Jas. Maitland, F.R.C.P. Ed., Alwington house, Baron's court, West Kensington, W.

1878 Coffin, Thomas Walker, 81, Queen's crescent, Haverstock hill, N.W.

1875* Cole, Richard Beverly, M.D. Jefferson Coll. Philad., 218, Post street, San Francisco, California, U.S.

1884 Collins, William Job, M.D., 1, Albert terrace, Gloucester gate, N.W.

1877 Colman, Walter Tawell, Hon. Surgeon to the Brighton Hospital for Women; 87, Buckingham road, Brighton,

1866 Coombs, James, M.D., Bedford.

1883 Cooney, John Edwin, L.R.C.P. Ed., 15, Queen street, Hammersmith, W.

1873 Cooper, Frank W., Gainsborough house, Leytonstone, E.

1874 Cooper, Herbert, L.R.C.P. Ed., Rosslyn hill, Hampstead, N.W.

Elected

1875 Cordes, Aug., M.D., Professor of Obstetrics at the University of Geneva; 12, Rue Bellot, Geneva. *Trans.* 1.

1883 Corner, Cursham, 128, Mile End road, E.

1860 Corry, Thomas Charles Steuart, M.D., Senior Surgeon to the Belfast General Dispensary; Ormeau terrace, Belfast. *Council*, 1867. *Hon. Loc. Sec.*

1859 Cory, Frederick Charles, M.D., Portland villa, Buckhurst hill, Essex. *Council*, 1867-69. *Trans.* 1.

1875 Cory, Robert, M.D., Assistant Obstetric Physician to St. Thomas's Hospital; 73, Lambeth Palace road, S.E. *Council*, 1879-81, 1884-5. *Trans.* 1.

1869 Cox, Richard, L.R.C.P. Ed., Theale, near Reading.

1877 Crawford, James, L.K.Q.C.P.I., Ightham, Sevenoaks.

1882 Crease, James Robertson, F.R.C.S. Ed., 2, Ogle Terrace, South Shields.

1881 Creasy, James Gideon, Brasted, Sevenoaks, Kent.

1883 Cremen, Patrick John, M.D., 4, Camden place, Cork.

1876 Crew, John, Higham Ferrers, Northamptonshire.

1859 Croft, J. McGrigor A. T., M.D., M.R.C.P., 15, Abbey road, St. John's Wood, N.W.

1881 Cronk, Herbert George, M.B. Cantab., Repton, near Burton-on-Trent.

1869 Cross, Robert Shackleford, Petersfield, Hants.

1875* Cullingworth, Charles James, M.D., M.R.C.P., Physician to St. Mary's Hospital, Manchester; Lecturer on Medical Jurisprudence at the Owens College School of Medicine; 260, Oxford road, Manchester. *Council*, 1883-5. *Trans.* 2.

1862 Cumberbatch, Lawrence Trent, M.D., 25, Cadogan place, Belgrave square, S.W. *Council*, 1868-70. *Vice-Pres.* 1878.

1859 Curgenven, J. Brendon, 11, Craven hill gardens, Bayswater, W. *Council*, 1870-72. *Trans.* 3.

1868 Daly, Frederick Henry, M.D., 185, Amhurst road, Hackney Downs, N.E. *Council*, 1877-9. *Vice-Pres.* 1883-5. *Trans.* 2.

Elected

1882 Dambrill-Davies, William R., Sandbach, Cheshire.

1884 Darwin, George Henry, M.R.C.P., The Cedars, Albert park, Didsbury, near Manchester.

1883 Davidson, Charles, F.R.C.S. Ed., 29, Cassland road, Hackney, E.

1876 Davies, Gomer, L.R.C.P. Ed., 9, Pembridge villas, Bayswater, W.

1884 Davies, John, 91, New North road, N.

1877 Davson, Smith Houston, M.D., Campden villa, 203, Maida vale, W.

1878 Day, Edmund Overman, Assistant Surgeon to the Royal Infirmary for Children and Women, Waterloo Bridge road; 78, Waterloo road, S.E.

1880 Day, William Hankes, Surgeon to the City Prisons, Norwich; 3, Surrey Street, Norwich.

1859 Day, William Henry, M.D., Physician to the Samaritan Free Hospital for Women and Children; 10, Manchester square, W. *Council*, 1873-75. *Vice-Pres.* 1885.

1877 Dewar, John, L.R.C.P. Ed., 132, Sloane street, S.W.

1860 Dickenson, John, F.R.C.S., Hon. Surgeon to the Wrexham Infirmary; Wrexham, Denbighshire.

1879 Dolan, Thomas Michael, M.D., Horton house, Halifax.

1879 Doran, Alban H. G., F.R.C.S., Surgeon to Out-Patients, Samaritan Free Hospital; 51, Seymour street, Portman square, W. *Council*, 1883-5. *Trans.* 5.

1880 Downes, Denis Sidney, L.K.Q.C.P. I., 55, Kentish town road, N.W.

1884 Doyle, E. A. Gaynes, L.R.C.P., Colonial Hospital, Trinidad.

O.F. Drage, Charles, M.D., Hatfield, Herts. *Council*, 1861-4. *Trans.* 1.

1871 Drake-Brockman, Edward Forster, F.R.C.S., L.R.C.P. Lond., Surgeon-Major; Superintendent Eye Infirmary, Madras; Professor of Physiology and Ophthalmology, Madras Medical College. [*Per* Messrs. Richardson and Co., East India Army Agency, 13, Pall Mall, S.W.]

Elected

1884 Drake, Charles Henry, Brixton hill, S.W.

1878 Dring, William Ernest, L.R.C.P. Ed., Buckhurst hill, Essex.

1884 Duke, John C., The Glen, Lewisham, S.E.

1883 Duncan, Alexander George, M.B., Calton house, Amhurst park, Stamford hill, N.E.

O.F. Duncan, James, M.B., 8, Henrietta street, Covent garden, W.C. *Council*, 1873-74.

1882 Duncan, William A., M.D., Assistant Obstetric Physician to the Middlesex Hospital; Obstetric Physician to the Royal Hospital for Women and Children; 6, Harley street, W. *Council*, 1885.

1882 Dutt, Upendra Krishna, L.R.C.P. Ed., 20, Beadon street, Calcutta.

1882 Eady, George John, M.D., Roslin, Caterham Valley.

1871 Eastes, George, M.B., F.R.C.S., 69, Connaught street, Hyde park square, W. *Council*, 1878-80.

1878 Eaton, John Chamberlin, Ancaster, Grantham, Lincolnshire.

1883 Eccles, F. Richard, M.D., London, Ontario, Canada.

1867 Edis, Arthur W., M.D., Assistant-Physician-Accoucheur to the Middlesex Hospital; Physician to the Chelsea Hospital for Women; 22, Wimpole street, W. *Council*, 1873-74. *Hon. Sec.* 1874-77. *Vice-Pres.* 1878-80. *Trans.* 8.

1879 Elder, George, M.D., C.M., Surgeon to the Hospital for Women, Nottingham; 17, Regent street, Nottingham. *Hon. Loc. Sec.*

1879 Elkington, Arthur Guy, Surgeon-Major, Grenadier Guards, 52, Gillingham street, Eccleston square, S.W.

1878 Ellery, Richard, L.R.C.P. Ed., Plympton, Devon.

1873 Engelmann, George Julius, A.M., M.D., 3003, Locust street, St. Louis, Missouri, U.S.

1884 English, Thomas Johnston, M.D., 128, Fulham road, S.W.

1875 Ewart, John Henry, Eastney, Devonshire place, Eastbourne.

Elected

1875 Eyeley, Joseph Frederick, L.R.C.P. Lond., 5, Hill-park crescent, Plymouth. *Hon. Loc. Sec.*

1884 Eyre, John J., L.K.Q.C.P., Vega House, Forest Hill, S.E.

1876 Farncombe, Richard, 40, Belgrave street, Balsall heath, Birmingham.

1869 Farquhar, William, M.D., Surgeon-Major, Madras Army, Ootacamund, Madras Presidency. [*Per* W. Farquhar, 3, Powis square, W.]

1861 Farr, Geo. F., L.R.C.P. Ed., Slade House, 175, Kennington road, S.E. *Council*, 1885.

1882 Farrar, Joseph, M.D., 8, Queen's terrace, Morecambe.

1881 Farrer, George Albert, Spring villa, Brighouse, Halifax.

1879 Fayrer, Sir Joseph, M.D., K.C.S.I., Hon. Physician to H.M. the Queen and to H.R.H. the Prince of Wales; Physician to H.R.H. the Duke of Edinburgh; President Medical Board, India Office, &c.; 53, Wimpole street, Cavendish square. *Council*, 1883.

1868 Fegan, Richard, M.D., Westcombe park, Blackheath, S.E.

1873 Finegan, James Herbert, M.D., Obstetric Surgeon to, and Lecturer on Midwifery at, the Liverpool Lying-in Hospital; 48, Rodney street, Liverpool.

1870 Fisher, John Moore, M.D., 6, Pryme street, Hull.

1882 Fitzgerald, Charles Egerton, M.D., West Terrace, Folkestone.

1884 Fitzgerald, James G., Arundel Lodge, Balham, S.W.

1878 Flint, Arthur, L.R.C.P., Westgate-on-Sea, Isle of Thanet.

1877* Fonmartin, Henry de, M.D., The Elms, Parkhurst, Isle of Wight.

1884 Ford, Alexander, L.R.C.P. Ed., Newtown park, Waterford.

1877* Ford, James, M.D., Eltham, Kent.

1884 Forster, Harry John, 420, Old Kent road, S.E.

1884 Forsyth, Alexander, M.D., 12, Park place, Greenwich, S.E.

1884 Fouracre, Robert Perriman, 20, Tollington park, N.

Elected

1865 Fowler, James, F.S.A., Hon. Surgeon to the Clayton Hospital and Wakefield General Dispensary; 13, South Parade, Wakefield. *Council*, 1872-4. *Hon. Loc. Sec.*

1862 Frain, Joseph, M.D., Hon. Surgeon to the South Shields Dispensary; Frederick street, South Shields.

1875 Fraser, Angus, M.D., Physician and Lecturer on Clinical Medicine to the Aberdeen Royal Infirmary; 232, Union street, Aberdeen.

1867 Freeman, Henry W., 24, Circus, Bath.

1881 Frodsham, John Mill, M.D., Denham House, Upper Streatham.

1880 Fry, John Blount, Swindon, Wiltshire.

1867 Fuller, Charles C., 33, Albany street, Regent's park, N.W.

1883 Fuller, Henry Roxburgh, M.A. Cantab., 45, Curzon street, Mayfair, W.

1874* Galabin, Alfred Lewis, M.A., M.D., Obstetric Physician to, and Lecturer on Midwifery at, Guy's Hospital; 49, Wimpole street, Cavendish square, W. *Council*, 1876-78. *Hon. Lib.* 1879. *Hon. Sec.* 1880-3. *Vice-Pres.* 1884. *Treas.* 1885. *Trans.* 11.

1863 Galton, John H., M.D., Woodside, 39, Anerley road, Upper Norwood, S.E. *Council*, 1874-6.

1881 Gandy, William, Hill Top, Gipsy hill, S.E.

1879 Gardner, John Twiname, 6, Hillsboro' terrace, Ilfracombe.

1872 Gardner, William, M.A., M.D., Professor of Gynæcology, McGill University; Physician to the University Dispensary for Women; Physician to the Montreal General Hospital; 914, Dorchester street, Montreal, Canada.

1863 Garman, Henry Vincent, Kent House, 6, Bow road, E.

1876 Garner, John, 52, New Hall street, Birmingham.

1873 Garton, William, M.D., F.R.C.S., Hardshaw street, St. Helen's, Lancashire.

1875 Gawith, J. Jackson, 23, Westbourne park terrace, W.

1877 Gell, Thomas Silvester, M.D., Thornborough, Queensland.

Elected

1859 GERVIS, HENRY, M.D., F.R.C.P., Obstetric Physician to, and Lecturer upon Obstetric Medicine at, St. Thomas's Hospital; 40, Harley street, Cavendish square. *Council*, 1864-66. *Hon. Sec.* 1867-70. *Vice-Pres.* 1871-3. *Treas.* 1878-81. *Pres.* 1883-4. *Trans.* 8.

1866 GERVIS, FREDERICK HEUDEBOURCK, 1, Fellows road, Haverstock hill, N.W. *Council*, 1877-9. *Trans.* 1.

1884 GIBB, CHARLES JOHN, M.D., Westgate House, Newcastle-on-Tyne.

1875 GIBBINGS, ALFRED THOMAS, M.D., 93, Richmond road, Dalston, N.E. *Council*, 1885.

1884 GIBBON, FREDERICK WILLIAM, 87, Hudson street, South Shields.

1883 GIBBONS, ROBERT ALEXANDER, M.D., Physician to the Grosvenor Hospital for Women and Children; 32, Cadogan place, S.W.

1874 GIBSON, JAMES EDWARD, Hillside, West Cowes, Isle of Wight.

1866 GIDDINGS, WILLIAM KITTO, L.R.C.P. Ed., Shaftesbury House, Calverley, near Leeds, Yorkshire.

1877 GIFFARD, DOUGLAS WILLIAM, 5, Pavilion Parade, Old Steyne, Brighton.

1875 GILES, PETER BROOME, L.R.C.P. Ed., The Quinta, Brobury, Hereford.

1869 GILL, WILLIAM, L.R.C.P. Lond., 11, Russell square, W.C.

1867 GITTINS, JOHN, L.R.C.P. Ed., St. John's, Horselydown, S.E.

1871 GODDARD, EUGENE, L.R.C.P. Lond., North Lynne, Highbury New Park, N. *Trans.* 1.

1876 GODFRAY, ALFRED CHARLES, M.B., St. Helier House, Jersey.

1877 GODSON, CHARLES, F.R.C.S., 1, Astwood road, Cromwell road, South Kensington, S.W.

1871 GODSON, CLEMENT, M.D., C.M., Consulting Physician to the City of London Lying-in Hospital; Assistant Physician-Accoucheur to St. Bartholomew's Hospital; 9, Grosvenor street, W. *Council*, 1876-77. *Hon. Sec.* 1878-81. *Vice-Pres.* 1882-4. *Trans.* 5.

Elected

1868 Godwin, Ashton, M.D., 28, Brompton crescent, Brompton, S.W.

1873 Goldsmith, John, M.D., Highworth House, Worthing, Sussex.

1873 Goodchild, Nathaniel, L.R.C.P. Ed., 9, Highgate road, N.W.

1883 Gordon, John, M.D., 10, Amersham road, New Cross, S.E.

1869 Goss, Tregenna Biddulph, 36, The Paragon, Bath.

1884 Gowans, William, F.R.C.S. Ed., 1, Victoria terrace, South Shields.

1875 Gray, James, M.D., 15, Newton terrace, Glasgow.

1884 Greene, Walter, L.R.C.P. Lond., Wallingford.

1874 Greene, William Thomas, M.D., Moira House, Peckham rye, S.E. *Council*, 1880. *Trans.* 1.

1863 Griffith, G. de Gorrequer, Lecturer on Diseases of Women and Children at the Zenana and Medical Mission Training School for Ladies; 34, St. George's square, S.W. *Trans.* 2.

1869 Griffith, John T., M.D., Talfourd House, Camberwell, S.E. *Council*, 1884-5.

1879 Griffith Walter Spencer Anderson, F.R.C.S., M.R.C.P., Tutor in Obstetrics and Gynæcology at St. Bartholomew's Hospital; 35, Great Ormond Street, W.C. *Trans.* 1.

1880 Griffiths, Griffith, Bryncelyn, Pontardawe, Swansea Valley.

1870 Grigg, William Chapman, M.D., Physician to the In-patients, Queen Charlotte's Lying-in Hospital; Assistant Obstetric Physician to the Westminster Hospital; Assistant-Physician to the Victoria Hospital for Children; 6, Curzon street, Mayfair. *Council*, 1875-77.

O.F. Grimsdale, Thos. F., L.R.C.P. Ed., Consulting Surgeon to the Lying-in Hospital, and late Lecturer on Diseases of Children, &c., at the Royal Infirmary School of Medicine; 29, Rodney street, Liverpool. *Council*, 1861-62. *Vice-Pres.* 1875-76.

Elected

1882 Gripper, Walter, M.B. Cantab., Featherstone villa, Wallington, Surrey.

1880 Grogono, Walter Atkins, 216, High Street, Stratford, E.

1877 Grosholz, Frederick Hermann Varley, L.K.Q.C.P.I. Pier House, Aberdovey, Merionethshire, North Wales.

1876 Groth, Ernst R. G., M.D., 5, Weymouth street, Portland place, W.

1879 Grove, William Richard, M.D., St. Ives, Huntingdonshire.

1867 Hadaway, James, L.R.C.P. Ed., Dent-de-Lion Villa, Garlinge, near Margate.

1876 Hadden, John, M.D., 31, West street, Horncastle, Lincolnshire.

1881 Hair, James, M.D., Westgate, Peterborough.

1859 Hall, Frederick, 1, Jermyn street, St. James's, S.W.

1871 Hallowes, Frederick B., Redhill, Reigate, Surrey. *Council*, 1885.

1880 Hames, George Henry, F.R.C.S., 2, Queensborough terrace, W.

1880 Hamilton, Thomas, M.D., Melrose House, Green lanes, Stoke Newington, N.

1860 Hardey, Key, Surgeon to the West City Dispensary; 4, Wardrobe place, Doctors' Commons, E.C.

1877 Harper, Gerald S., 5, Hertford street, May Fair, W.

1878 Harries, Thomas Davies, F.R.C.S., 36, North Parade, Aberystwith, Cardiganshire.

O.F. Harrinson, Isaac, F.R.C.S., Castle street, Reading, Berks. *Council*, 1862-65. *Hon. Loc. Sec.*

1862 Harris, Charles, M.D., Northiam, Ashford, Kent.

1872 Harris, Henry, M.D., F.R.C.S., Trengweath place, Redruth Cornwall.

1867 Harris, William H., M.D., late Professor of Midwifery in the Madras Medical College, and Superintendent of the Lying-in Hospital, Madras; 78, Oxford gardens, W. [agent: Mr. H. K. Lewis, Gower street].

1861 Harris, William John, 26, Marine Parade, Worthing. *Hon. Loc. Sec.*

Elected

1880 Harrison, Richard Charlton, 4, The Terrace, St. Mary's vale, Chatham.

1879 Harvey, George, L.R.C.P. Ed., Wirksworth, Derbyshire.

1880 Harvey, John Stephenson, 69, Rue Faidherbe, Boulogne-sur-Mer, France.

1865 Harvey, Robert, M.D., 52, Chowringhee, Calcutta. [Per Messrs. Cochran and Anderson, 152, Union street, Aberdeen.] *Trans.* 1. *Hon. Loc. Sec.*

1884 Hawkins, Francis Henry, M.B.

1865 Hayes, Hawkesley Roche, Basingstoke, Hants.

1873 Hayes, Thomas Crawford, M.D., Assistant Obstetric Physician to King's College Hospital; 17, Clarges street, Piccadilly, W. *Council,* 1876-78.

1880 Heath, William Lenton, M.B., 88a, Cromwell road, Queen's gate, S.W. *Trans.* 1.

1867 Hembrough, John William, Ivy cottage, Waltham, Grimsby.

1881 Hepburn, William Alex., Rosslyn House, Coxhoe, Co. Durham.

1876 Herman, George Ernest, M.B., Obstetric Physician to, and Lecturer on Midwifery at, the London Hospital, 7, West street, Finsbury circus, E.C. *Council,* 1878-79. *Hon. Lib.* 1880-1. *Hon. Sec.* 1882-5. *Trans.* 5.

O.F. Hewitt, Graily, M.D., F.R.C.P., Professor of Midwifery in University College, London, and Obstetric Physician to University College Hospital; 36, Berkeley square, W. *Hon. Sec.* 1859-64. *Treas.* 1865-66. *Vice-Pres.* 1867-68. *Pres.* 1869-70. *Trans.* 21.

1860 Hicks, John Braxton, M.D., F.R.C.P., F.R.S., Consulting Obstetric Physician to Guy's Hospital; 24, George street, Hanover square. *Council,* 1861-2, 1869. *Hon. Sec.* 1863-65. *Vice-Pres.* 1866-68. *Treas.* 1870. *Pres.* 1871-2. *Trans.* 36.

1860 Higgs, Thomas Frederic, M.D., Beaconsfield House, Dudley, Worcestershire.

1879 Hill, T. Wood, L.R.C.P. Ed., 96, Earl's court road, W.

Elected

1872 Hilliard, Robert Harvey, M.D., Aylesbury.

O.F. Hodges, Richard, M.D., F.R.C.S., 25, York place, Baker street, W. *Trans.* 3.

1864 Hoffmeister, Sir William Carter, M.D., Surgeon to the Queen in the Isle of Wight; Clifton House, Cowes, Isle of Wight. *Council*, 1877-9.

1875 Hollings, Edwin, M.D., 4, Gordon street, Gordon square, W.C.

1859 Holman, Constantine, M.D., The Barons, Reigate, Surrey. *Council*, 1867-69. *Vice-Pres.* 1870-71.

1880 Honiball, Oscar Dunscombe, M.D., Demerara, British Guiana.

1864 Hood, Wharton Peter, M.D., 65, Upper Berkeley street, Portman square, W.

1872 Hope, William, M.D., Physician to Queen Charlotte's Lying-in Hospital; 56, Curzon street, Mayfair, W. *Council*, 1877-9.

1884 Hopkins, John, L.R.C.P. Ed., 93, Camberwell road, S.E.

1883* Horrocks, Peter, M.D., M.R.C.P. Lond., Assistant Obstetric Physician to, and Demonstrator of Practical Obstetrics at, Guy's Hospital; 9, St. Thomas's street, S.E. *Trans.* 1.

1876 Horsman, Godfrey Charles, 22, King street, Portman square, W.

1883 Hoskin, Theophilus, L.R.C.P. Lond., 186, Amhurst road, N.E.

1883 Houchin, Edmund King, L.R.C.P. Ed., 29, High street, Stepney, E.

1884 Hough, Charles Henry, Full street, Derby.

1877 Howell, Horace Sydney, M.D., East Grove house, 18, Boundary road, St. John's Wood, N.W.

1879 Hubbard, Thomas Wells, Lenham, Bromley, Kent.

1882 Hunt, Joseph William, M.D., B.S., 101, Queen's road, Dalston, E.

1883 Hurford, Charles, L.R.C.S.I., 258, Caledonian road, N.

Elected

1884* HURRY, JAMIESON BOYD, M.B. Cantab., Woodside, Avenue road, Crouch End, N. *Trans.* 1.

1878 HUSBAND, WALTER EDWARD, 56, Bury New Road, Manchester.

1859 HUTCHINSON, JONATHAN, F.R.C.S., F.R.S., Consulting Surgeon to the London Hospital; 15, Cavendish square, W. *Council*, 1869-71. *Vice-Pres.* 1881-3. *Trans.* 1.

1882 HUTTON, ROBERT JAMES, L.R.C.P. Ed., Stapleton House, Stapleton Hall road, Crouch hill, N.

1877 ILOTT, JAMES JOHN, L.R.C.P. Ed., Resident Medical Officer, Whitechapel Union Infirmary, Baker's row, E.

1884 INGLE, ROBERT NICHOLS, M.D., University Lecturer on Midwifery, 21, Regent street, Cambridge.

1884 INGLIS, JAMES, 52, Carden place, Aberdeen.

1879 INKSON, JAMES, M.D., Brigade-Surgeon, Army Medical Department, General Hospital, Calcutta.

1883 INMAN, ROBERT EDWARD, 243, Hackney road, E.

1884 IRWIN, JOHN ARTHUR, M.A., M.D., 363, Fifth avenue, New York.

1864 JACKSON, EDWARD, M.B., 81, Osborne Road, Jesmond, Newcastle-on-Tyne.

1883 JACKSON, GEORGE HENRY, Lansdowne House, Tottenham.

1884 JACKSON, JAMES, 14, Huntingdon street, Barnsbury, N.

1864 JACKSON, ROBERT, M.D., 53, Notting hill square, W. *Council*, 1885.

1883 JAKINS, PERCY S., 9, Osnaburgh street, Regent's park, N.W.

1873 JAKINS, WILLIAM VOSPER, L.R.C.P. Ed., Sturt street, Ballarat, Victoria. [Per Isaac N. Jakins, Esq., 32, Osnaburgh street, Regent's park.]

1872 JALLAND, ROBERT, Horncastle, Lincolnshire. *Trans.* 1.

1878 JAMES, WALTER CULVER, M.D., M.C., 11, Marloes road, Kensington, W.

1877 JAMIESON, PATRICK, M.A., 3, St. Peter's street, Peterhead, Aberdeenshire.

Elected

1883* JENKINS, EDWARD JOHNSTONE, M.B. Oxon., Australian Club, Sydney (per H. K. LEWIS, 136, Gower street, W. C.).

1877 JENKS, EDWARD W., M.D., 170, State street, Chicago, Illinois, U.S.

1882 JENNINGS, CHARLES EGERTON, F.R.C.S. Eng., Assistant Surgeon to the North-West London Hospital; 75, Park street, Grosvenor square, W.

1883 JOHNSON, ARTHUR JUKES, M.B., 1, Yorkville avenue, Toronto, Ontario, Canada.

1877 JOHNSON, SAMUEL, M.D., 5, Hill street, Stoke-upon-Trent.

1881 JOHNSTON, JOSEPH, M.D., 24, St. John's Wood Park, N.W.

1879 JOHNSTON, WM. BEECH, M.D., 157, Jamaica road, Bermondsey, S.E.

1868 JONES, EVAN, Ty-Mawr, Aberdare, Glamorganshire. *Hon. Loc. Sec.*

1878 JONES, H. MACNAUGHTON, M.D., F.R.C.S.I. and Edin., Examiner in Obstetrics, Royal University of Ireland; Professor of Obstetrics, Queen's College, Cork; 141, Harley street, Cavendish square, W.

1881 JONES, JAMES ROBERT, M.B., Box, 320, Winnipeg, Manitoba, Canada.

1868 JONES, JOHN, 60, King street, Regent street, W.

1874 JONES, JOHN THOMAS, L.K.Q.C.P. I., 179, Brixton road, S.W.

1876 JONES, LESLIE, M.D., C.M., Limefield House, Cheetham Hill, Manchester.

1883 JONES, MONTAGU HANDFIELD, M.R.C.P. Lond., 24, Montagu square, W.

1873 JONES, PHILIP W., Silver street, Enfield.

1883 JONES, W. H. FENTON, M.D., 29, Brook street, Grosvenor square, W.

1879 JOUBERT, CHARLES HENRY, M.D., Darjeeling, Bengal; [care of Messrs. Gray and Co., 21, Canning street, Calcutta].

Elected

1878 JUDSON, THOMAS ROBERT, L.R.C.P. Lond., Hayman's Green, West Derby, Liverpool.

1875 JUKES, AUGUSTUS, M.B., N. W. Mounted Police, Regina, N. W. Territory, Canada.

1878 KANE, NATHANIEL H. K., M.D., Lanherne, Kingston hill, Surrey.

1884 KEATES, WILLIAM COOPER, L.R.C.P., 2, Tredegar villas, East Dulwich road, S.E.

1880 KEBBELL, ALFRED, Flaxton, York.

O.F. KEELE, GEORGE THOMAS, 81, St. Paul's road, Highbury, N. *Council*, 1885.

1883 KEELING, JAMES HURD, M.D., 267, Glossop road, Sheffield. *Hon. Loc. Sec.*

1874 KEMPSTER, WILLIAM HENRY, L.R.C.P. Ed., Oak House, Bridge road, Battersea.

1879 KER, HUGH RICHARD, L.R.C.P. Ed., Townsend House, Hales-Owen.

1865* KERNOT, GEORGE CHARLES, 9, Elphinstone road, Hastings.

1883 KERR, J. KING, M.D., Leytonstone, E.

1872 KERR, NORMAN S., M.D., F.L.S., 42, Grove road, Regent's park, N.W.

1877* KERSWILL, JOHN BEDFORD, M.R.C.P. Ed., Fairfield, St. German's, Cornwall.

1878 KHORY, RUSTONJEE NASERWANJEE, M.D. Brussels, L.Med. Bombay, Physician to the Parell Dispensary, Bombay, Lecturer to Native Midwives, Grant Medical College, Bombay; Girgaum road, Bombay.

O.F. KIALLMARK, HENRY WALTER, 5, Pembridge gardens, Bayswater. *Council*, 1879-80.

1860 KINGSFORD, EDWARD, F.R.C.S., Surgeon to the Sunbury Dispensary; Sunbury-on-Thames.

1862 KIRKPATRICK, JOHN RUTHERFORD, M.D. Dub., King's Professor of Midwifery, Dublin University; 4, Upper Merrion street, Dublin. *Council*, 1872-4.

1872* KISCH, ALBERT, 3, Sutherland gardens, Maida vale, W.

1867 KNAGGS, HENRY GUARD, M.D., 189, Camden road, N.W.

Elected

1884 Knapton, George, L.R.C.P. Ed., Portswood, Southampton.

1876 Knott, Charles, M.R.C.P. Ed., Liz Ville, Elm grove, Southsea.

1881 Lacy, Charles Sethward de Lacy, M.B., 31, Grosvenor street, W.

1867 Langford, Charles P., 29, Duncan terrace, Islington, N.

1883 Langley, Aaron, L.R.C.P. Ed., 149, Walworth road, S.E.

O.F. Langmore, John Charles, M.B., F.R.C.S., 20, Oxford terrace, Hyde park, W. *Council*, 1861-64. *Vice-Pres.* 1869-71.

1872 Lattey, James, 23, St. Mary Abbott's terrace, Kensington, W.

1875 Lawrence, Alfred Edward Aust, M.D., Physician-Accoucheur to the Bristol General Hospital; 15, Richmond hill, Clifton, Bristol. *Council*, 1885.

1878 Leachman, Albert Warren, M.D., Fairley, Petersfield, Hants.

1884 Leadam, William Ward, M.D., 80, Gloucester terrace, Hyde park, W.

1884 Lediard, Henry Ambrose, M.D., 43, Lowther street, Carlisle. *Trans.* 1.

1882 Lee, Francis Boynton, F.R.C.P. Ed., The Elms, Heckmondwike.

1860 Leishman, William, M.D., Physician to the University Lying-in Hospital, Regius Professor of Midwifery in the University of Glasgow; 11, Woodside crescent, Glasgow. *Council*, 1866-68. *Vice-Pres.* 1869-70. *Trans.* 1.

1882 Leonard, Henry James, M.B., 279, Camden road, N.W.

1881 Le Page, John Fisher, L.R.C.P. Ed., 17, The Crescent, Salford, Manchester.

1877 Lewis, John Riggs Miller, M.D., Deputy-Surgeon General, Woodlands, Queen's road, Norbiton, S.W.

1875 Liebman, Carlo, M.D. Vienna, Principal Surgeon, Trieste Civil Hospital, Trieste, Austria. *Trans.* 1.

1873 Lindsay, W. B., M.D., Strathroy, Ontario, Canada.

Elected

1874 Lithgow, Robert Alexander Douglas, M.R.C.P. Ed., 27a, Lowndes street, Belgrave square, S.W.

1868 Llewellyn, Evan, L.R.C.P. Ed., 9, Mount place, London Hospital, E.

1872* Lock, John Griffith, M.A., Lansdowne House, Tenby.

1859 Lombe, Thomas Robert, M.D., Bemerton, Torquay.

1870 Long, Mark, M.D., Ludlow, Salop.

1876 Lovett, Henry Albert, Swansea, Tasmania. [Per S. W. Lovett, St. Stephen's street, Norwich.]

1862 Lowe, George, F.R.C.S., 5, Horninglow street, Burton-on-Trent, Staffordshire. *Trans.* 1.

1873 Lush, William John Henry, F.R.C.P.Ed., Associate of King's College, London; Fyfield House, Andover.

1878* Lycett, John Allan, M.D., The "Hollies," Graiseley, Wolverhampton.

1871 McCallum, Duncan Campbell, M.D., Professor of Midwifery and Diseases of Women and Children, McGill University; Physician to the University Lying-in Hospital; and Physician to the Montreal General Hospital; 45, Union avenue, Montreal, Canada. *Trans.* 4.

1884 McCarthy, George Francis, L.K.Q.C.P., 138, Westminster Bridge road, S.E.

1879 Mackeough, George J., M.D., Chatham, Ontario, Canada.

O.F. Mackinder, Draper, M.D., Consulting-Surgeon to the Gainsborough Dispensary; Gainsborough, Lincolnshire. *Council*, 1871-3. *Trans.* 2.

1879 Maclaurin, Henry Normand, M.D., 155, Macquarie street, Sydney, New South Wales.

1879 MacSwinney, George Henry, M.D., Waverton, Petersham, Sydney, N. S. Wales.

1859 Madge, Henry M., M.D., 4, Upper Wimpole street, W. *Council*, 1863-65, 1884. *Vice-Pres.* 1872-4. *Trans.* 15.

1884 Malcolm, John D., M.B., C.M., 24, Bryanston street, W.

Elected

1871 Malins, Edward, M.D., Obstetric Physician to the General Hospital, Birmingham ; 8, Old square, Birmingham. *Council*, 1881-3. *Vice-Pres.* 1884-5.

1876 Manby, Frederick Edward, 10, King street, Wolverhampton.

1876 Manders, Horace, Agincourt House, York town, Farnborough Station.

1884 Maples, Reginald, L.R.C.P. Ed., Kingsclere, Newbury.

1868 March, Henry Colley, M.D., 2, West street, Rochdale.

1860 Marley, Henry Frederick, Padstow, Cornwall.

1862 Marriott, Robert Buchanan, Swaffham, Norfolk.

1873 Martin, Henry Charrington, M.B., C.M., 11, Somers place, Hyde park, W.

1875 Mason, John Wallis, 1, Osnaburgh terrace, Regent's park, N.W.

1877 Mason, Samuel Butler, L.R.C.P. Ed., Denham House, Pontypool, Monmouthshire.

1884 Massey, Hugh Holland, 2, North terrace, Camberwell, S.E.

1884 Masters, John Alfred, L.R.C.P. Lond., Westall House, Brook green, W.

1877 Maunsell, H. Widenham, A.M., M.D., Pitt and London street, Dunedin, New Zealand.

1883 Maurice, Oliver Calley, 75, London street, Reading.

1877 May, Lewis James, Bountis Thorne, Seven Sisters road, Finsbury Park, N.

1884 Maynard, Edward Charles, L.R.C.P. Ed., 32, Sandgate road, Folkestone.

1882 Meredith, William Appleton, M.B., C.M., 6, Queen Anne street, Cavendish square, W.

1883 Middlemist, Robert Percy, L.R.C.P. Lond., 10, Bedford place, Russell square, W.C.

1875 *Miles, Abijah J., M.D., Professor of Diseases of Women and Children in the Cincinnati College of Medicine, Cincinnati, Ohio, U.S.

Elected

1871 Miller, Hugh, M.D., Physician-Accoucheur to the Glasgow Maternity Hospital; 298, Bath crescent, Bath street, Glasgow.

1876 Millman, Thomas, M.D., Asylum for the Insane, London, Ontario, Canada.

1880 Mills, Robert James, M.B., M.C., All Saints' Green, Norwich.

1876 Milson, Richard Henry, M.D., 88, Finchley road, South Hampstead, N.W.

1869 Milward, James, 27, Charles Street, Cardiff. *Trans.* 1.

1869 Minns, Pembroke R. J. B., M.D., Thetford, Norfolk.

1867 Mitchell, Robert Nathal, M.D., Chester House, Wickham road, Lewisham High road, S.E.

1884 Mitra, Asutosh, L.R.C.P. Ed., Calcutta [per Messrs. Grindlay and Co., 53, Parliament street, W.].

1868 Moothoosawmy Moodelly, P. S., M.D., F.L.S., Native Surgeon, Uncovenanted Service, and Teacher of Midwifery, L. F. Midwifery, Manargoodi, Tanjore District, Madras Presidency. *Trans.* 1.

1877 Moon, Frederick, M.B., Bexley house, Greenwich.

1873 Moon, Robert Henry, F.R.C.S., Fern Lodge, Lower Norwood.

1859 Moorhead, John, M.D., Surgeon to the Weymouth Infirmary and Dispensary; Weymouth, Dorset.

1883 Morris, Clarke Kelly, Upper Welland terrace, Spalding.

1879 Moullin, James A. Mansell, M.A., M.B., Assistant Physician to the Hospital for Women and Children, 69, Wimpole street, Cavendish square, W. *Trans.* 1.

1878 Mowat, George, St. Albans. *Trans.* 1.

1878 Muir, James C. P., L.R.C.P. Ed., 44, Cornwall road, Westbourne park.

1877 Murphy, James, M.D., Honorary Surgeon to the General Infirmary, Sunderland, and Lecturer on Botany in the University of Durham College of Medicine at Newcastle-upon-Tyne; Holly House, Sunderland. *Hon. Loc. Sec.*

Elected

O.F. Murray, Gustavus Charles P., M.D., Obstetric Physician to the Great Northern Hospital; 66, Great Cumberland place, Hyde park, W. *Council*, 1864-65. 1883-5. *Hon. See.* 1866-69. *Vice-Pres.* 1870-72. *Treas.* 1873-77. *Trans.* 3.

O.F. Musgrave, Johnson Thomas, L.R.C.P. Ed., Irlam villa, 39, Finchley road, N.W. *Council*, 1859-60. *Trans.* 1.

1863 Nason, John James, M.B. Lond., 11, Bridge street, Stratford-on-Avon.

1859 Neal, James, M.D., late Hon. Surgeon to the Lying-in Hospital, Birmingham; Barcelona House, Sandown, Isle of Wight.

1882 Nesham, Thomas Cargill, M.D., Lecturer in Midwifery in the University of Durham College of Medicine at Newcastle-on-Tyne; 12, Ellison place, Newcastle-on-Tyne.

1881 Netherclift, William Henry, Junior Athenæum Club, Piccadilly, W.

1876 Newham, James, 16, Princes street, Cavendish square, W.

1859 Newman, William, M.D., Surgeon to the Stamford and Rutland Infirmary; Barn Hill House, Stamford, Lincolnshire. *Council*, 1873-75. *Vice-Pres.* 1876-77 *Trans.* 4.

1883 Newsholme, Arthur, M.D., 39, High street, Clapham, S.W.

1873 Nicholson, Arthur, M.B. Lond., 98, Montpellier road, Brighton.

1879 Nicholson, Emilius Rowley, M.D., 89, Camden road, N.W.

1876 Nix, Edward James, M.D., 143, Great Portland street, W.

1882 Norman, John Edward, Lismore House, Hebburn-on-Tyne.

1883 Nunn, Philip W. G., L.R.C.P. Lond., Christchurch road, Bournemouth.

1884 Oakes, Arthur, M.D., 99, Priory road, West Hampstead, N.W.

1880 Oakley, John, Holly House, Wood's End, Halifax, Yorkshire.

1876 Ogston, Francis, Junr., M.D., 156, Union street, Aberdeen.

Elected

O.F. Oldham, Henry, M.D., F.R.C.P., Consulting Obstetric Physician to Guy's Hospital; 4, Cavendish place, Cavendish square, W. *Vice-Pres.* 1859. *Council*, 1860, 1865-66. *Treas.* 1861-62. *Pres.* 1863-64. *Trans.* 1. *Trustee.*

1884 Openshaw, Thomas Horrocks, M.B., London Hospital, E.

1869 Ord, George Rice, Streatham hill, Surrey. *Council* 1881.

1880 Orton, Charles, M.D., Nelson place, Newcastle-under-Lyme, Staffordshire.

1877 Osterloh, Paul Rudolph, M.D. Leipzic; Dresden.

1877 Ostlere, Robert, M.B., C.M., 47, Stoke Newington road, N.

1863 Oswald, James Waddell Jeffries, M.D., 245, Kennington road, S.E. *Trans.* 4.

1884 Oswald, Robert James William, L.R.C.P., 48, Clapham road, S.W.

1880 Outhwaite, William, Hebert House, Denmark Hill, S.E.

1883 Palmer, John Irwin, Warwick lodge, Kingston-on-Thames.

1877 Palmer, Montagu H. C., London road, Newbury, Berks.

1877 Paramore, Richard, 18, Hunter street, Brunswick square, W.C.

1882 Parkes, Louis, M.D., 51, Cadogan square, S.W.

1867 Parks, John, The Wylde, Bury, Lancashire.

1873 Parks, Luther, A.M., M.D., 1, Place Duplaa, Pau, France. [Agents: Messrs. Baring Brothers & Co., 8, Bishopsgate street within, E.C.]

1872 Parr, George, M.D., 18, Upper Phillimore place, Kensington, W.

1880 Parsons, Sidney, 78, Kensington park road, W.

1865* Paterson, James, M.D., Hayburn Bank, Partick, Glasgow.

1879 Pauli, Theophilus William, L.R.C.P. Ed., Luton, Beds.

1874 Payne, William S. Hele, 54, Queen's Road, Peckham, S.E.

Elected

1882* Peacey, William, M.B., 214, Lewisham high road, S.E.

1864 Pearson, David Ritchie, M.D., 23, Upper Phillimore place, Kensington, W.

1871 Pedler, George Henry, 6, Trevor terrace, Rutland gate, S.W.

1880 Pedley, Thomas Franklin, Rangoon, India.

1880 Peel, Robert, 114, Collins street east, Melbourne, Victoria.

1881 Penny, George Town, B.A., Stanley House, Oakfield road, Upper Tollington Park, N.

1881 Perigal, Arthur, M.D., New Barnet, Herts.

1871 Perrigo, James, M.D., 163, Bleury street, Montreal, Canada. *Hon. Loc. Sec.*

1879* Pesikaka, Hormasji Dosabhai, 23, Hornby row, Bombay.

1883 Pettifer, Edmund Henry, 29, Stoke Newington green, N.

1879 Phibbs, Robert Featherstone, L.R.C.P. Ed., Pelham House, 30, Sutherland gardens, Maida vale, W.

1879 Phillips, George Richard Turner, 24, Leinster square, Bayswater, W.

1882 Phillips, John, B.A., M.B., Physician to Out-patients, British Lying-in Hospital; Assistant Physician, Chelsea Hospital for Women; 14, Orchard street, Portman square, W.

1878 Philpot, Joseph Henry, M.D., 13, South Eaton place, S.W.

1871 Philps, Philip George, 4, Queen's road, Peckham, S.E.

1876 Picard, P. Kirkpatrick, M.D., 59, Abbey road, St. John's Wood, N.W.

1874 Pigg, Thomas, M.D., M.R.C.P., Physician to the Manchester Southern Hospital for Women and Children; 98, Mosley street, Manchester.

1866 Pilcher, William John, 43, High street, Boston, Lincolnshire.

1864 Playfair, W. S., M.D., F.R.C.P., Physician Accoucheur to H.I. & R.H. the Duchess of Edinburgh; Professor of Obstetric Medicine in King's College, and Obstetric Physician to King's College Hospital; 31, George street, Hanover Square, W. *Council*, 1867. 1883-5. *Hon. Librarian*, 1868-9. *Hon. Sec.* 1870-72. *Vice-Pres.*, 1873-5. *Pres.* 1879-80. *Trans.* 14.

Elected

1880 POCOCK, FREDERICK ERNEST, M.D., The Limes, St. Mark's road, Notting hill, W.

1883 POCOCK, WALTER, Broadlands, Effra road, Brixton, S.W.

O.F.* POLLARD, WILLIAM, Surgeon to the Torbay Hospital; Southlands, Torquay, Devon.

1883 POOK, WILLIAM JOHN, L.R.C.P., 2, Hemingford road, N.

1877 POOLE, S. WORDSWORTH, M.D., Dunedin, Sidcup, Kent. *Trans.* 1.

1876 POPE, H. CAMPBELL, M.D., F.R.C.S., Broomsgrove Villa, 280, Goldhawk road, Shepherd's Bush, W.

1882 PORTER, JOSEPH FRANCIS, M.D., 1, Bow road, E.

1864 POTTER, JOHN BAPTISTE, M.D., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery and Diseases of Women at, the Westminster Hospital; 20, George street, Hanover square, W. *Council*, 1872-6. *Hon. Lib.* 1877-8. *Vice-Pres.* 1879-81. *Treas.* 1882-4. *Pres.* 1885. *Trans.* 1.

1875 POWDRELL, JOHN, 160, Euston road, N.W.

1884 POWELL, JOHN JAMES, L.R.C.P. Lond., Blyton House, Weybridge.

1863 POWELL, JOSIAH T., M.D., 347, City road, E.C.

1864 PRICE, WILLIAM NICHOLSON, Lecturer on Midwifery and the Diseases of Women and Children at the Leeds School of Medicine; Mount Pleasant, Leeds. *Council*, 1876-8.

1880 PRICKETT, MARMADUKE, M.A. Cantab., M.D., Physician to the Samaritan Hospital; 12, Devonport street, Gloucester square, W.

O.F. PRIESTLEY, WILLIAM O., M.D., F.R.C.P., Consulting Obstetric Physician to King's College Hospital; and Consulting Physician-Accoucheur to the St. Marylebone Infirmary; 17, Hertford street, Mayfair, W. *Council*, 1859-61, 1865-66. *Vice-Pres.* 1867-69. *Pres.* 1875-76. *Trans.* 5.

1884 PRONGER, CHARLES ERNEST, L.R.C.P., Litchdon, Barnstaple.

1876 QUIRKE, JOSEPH, L.R.C.P. Ed., The Oaklands, Hunter's lane, Handsworth, Birmingham.

Elected

O.F. RANDALL, JOHN, M.D., Lecturer on Medical Jurisprudence, St. Mary's Hospital Medical School; Medical Officer, St. Marylebone Infirmary; 204, Adelaide road, N.W. *Council*, 1877.

1861 RASCH, ADOLPHUS A. F., M.D., Physician for Diseases of Women to the German Hospital; Physician to the Training Hospital, Tottenham; 7, South street, Finsbury square, E.C. *Council*, 1871-3. *Trans.* 5.

1878 RAWLINGS, JOHN ADAMS, M.R.C.P. Ed., 4, Northampton terrace, Swansea.

1870 RAY, EDWARD REYNOLDS, Dulwich, Kent, S.E.

1860* RAYNER, JOHN, M.D., Swaledale House, Quadrant road north, Highbury New Park, N.

1879 READ, THOMAS LAURENCE, 11, Petersham terrace, Queen's gate, S.W.

1874 REES, WILLIAM, Priory House, 129, Queen's crescent, Haverstock hill, N.W.

1879 REEVE, HENRY, 57, Stepney green, E.

1879 REID, WILLIAM LOUDON, M.D., 7, Royal crescent, Glasgow.

1875* REY, EUGENIO, M.D., 39, Via Cavour, Turin.

1883 REYNOLDS, JAMES J., L.R.C.P. Lond., Boxford, Suffolk.

1862 RICHARDS, DAVID, Llangeitho, Cardiganshire. *Trans.* 1.

1862 RICHARDS, S. SMITH C., 36, Bedford square, W.C.

1883 RICHARDSON, ADOLPHUS J., M.B. Cantab., M.R.C.P. Lond., London Hospital, E.

1872 RICHARDSON, WILLIAM L., M.D., A.M., Assistant Professor of Obstetrics in Harvard University; Visiting Physician to the Massachusetts General Hospital and to the Boston Lying-in Hospital; 76, Boylston street, Boston, Massachusetts, U.S.

1872 RIGDEN, GEORGE, Surgeon to the Canterbury Dispensary; 60, Burgate street, Canterbury. *Trans.* 1.

1871 RIGDEN, WALTER, 231, Brompton road, S.W. *Council*, 1882-3. *Trans.* 1.

Elected

O.F.* ROBERTS, DAVID LLOYD, M.D., F.R.S.E., F.R.C.P., Physician to St. Mary's Hospital, Manchester; 11, St. John's street, Deansgate, Manchester. *Council*, 1868-70, 1880-2. *Vice-Pres.* 1871-2. *Trans.* 5. *Hon. Loc. Sec.*

1867 ROBERTS, DAVID W., M.D., 56, Manchester street, Manchester square, W.

1883 ROBERTS, JOHN CORYTON, L.R.C.P. Ed., Avenue House, Peckham Rye, S.E.

1874 ROBERTSON, WILLIAM BORWICK, M.D., West Dulwich, S.E.

1884 ROBINSON, LUKE, M.R.C.P. Lond., San Francisco, California.

O.F. ROBINSON, THOMAS, M.D., 5, Woburn square, W.C.

1876 ROE, JOHN WITHINGTON, M.D., Ellesmere, Salop.

O.F. ROGERS, WILLIAM RICHARD, M.D., Physician to the Samaritan Free Hospital for Women and Children; Consulting Physician to the Hospital for Women, Vincent square, S.W.; 56, Berners street, Oxford street, W. *Council*, 1870-72. *Trans.* 4.

1874 ROOTS, WILLIAM HENRY, Canbury House, Kingston-on-Thames.

1874 ROPER, ARTHUR, 17, Granville park, Blackheath.

1865 ROPER, GEORGE, M.D., Consulting Physician to the Royal Maternity Charity; Physician to the Royal Hospital for Diseases of Children and Women, Waterloo Bridge road; 19, Ovington gardens, S.W. *Council*, 1875-77. 1883-5. *Vice-Pres.* 1879-81. *Trans.* 10.

1859 ROSE, HENRY COOPER, M.D., Rosslyn hill, Hampstead, N.W. *Council*, 1875-77. *Trans.* 4.

1880 ROSS, DAVID PALMER, M.D., Kingston, Jamaica.

1883 ROSSER, WALTER, M.D., 1, Wellesley villas, Croydon.

1884 ROSSITER, GEORGE FREDERICK, M.B., Cairo Lodge, Weston-super-Mare.

1884 ROUGHTON, WALTER, L.R.C.P. Lond., Station road, New Barnet.

Elected

1882 Routh, Amand J. McC., M.D., B.S., Assistant Obstetric Physician, Charing Cross Hospital; Physician to the Samaritan Free Hospital; 6, Upper Montagu street, W.

O.F. Routh, Charles Henry Felix, M.D., Consulting Physician to the Samaritan Free Hospital for Women and Children; 52, Montagu square, W. *Council*, 1859-61. *Vice-Pres.* 1874-6. *Trans.* 13.

1881 Roworth, Alfred Thomas, Grays, Essex.

1882 Russell, Francis J. R., L.K.Q.C.P., 48, Lupus street, S.W.

1870 Russell, Logan D. H., M.D., Government Park Estate, near Spanish Town, Jamaica (2, St. James's road, New Brighton).

1866 Saboia, V., M.D., 34, Rua do Visconde Maranguape, Rio de Janeiro. *Trans.* 2.

1883 Salter, Francis Joseph, L.R.C.P. Ed., 9, Lyddon terrace, Leeds.

1864 Salter, John H., D'Arcy House, Tolleshunt D'Arcy, Kelvedon, Essex.

1875 Salzmann, Frederick William; Senior Surgeon to the Hospital for Women; 18, Montpellier road, Brighton. *Council*, 1880-2. *Hon. Loc. Sec.*

1868* Sams, John Sutton, St. Peter's Lodge, Eltham road, Lee, Kent.

1883 Sandel, Anundo Lall, M.B., 89, South Colinga street, Calcutta.

1872 Sangster, Charles, 148, Lambeth road, S.E.

1870 Saul, William, M.D., 44, Bedford square, W.C.

1872 Savage, Thomas, M.D., Surgeon to the Birmingham and Midland Hospital for Women; 20, Calthorpe road, Birmingham. *Council*, 1878-80. *Hon. Loc. Sec.*

1877 Savory, Charles Tozer, M.D., 1, Douglas road, Canonbury, N. *Trans.* 1.

O.F. Scott, John, F.R.C.S., 10, Tavistock square, W.C. *Council*, 1868-70. *Vice-Pres.* 1871-3. *Trans.* 1.

1870 Scott, John, M.D., New street, Sandwich.

Elected

1866 Sequeira, James Scott, 68, Leman street, Goodman's fields, E., and Crescent House, Cassland Crescent, Cassland road, South Hackney.

1882 Serjeant, David Maurice, M.D., 1, The Terrace, Camberwell, S.E.

1875 Seton, David Elphinstone, M.D., 12, Thurloe place, South Kensington. *Council*, 1884.

1860 Sewell, Charles Brodie, M.D., 21, Cavendish square, W., and 13, Fenchurch street, E.C. *Council*, 1880-2.

O.F. Sharpin, Henry Wilson, F.R.C.S., Surgeon to the Bedford General Infirmary, Bedford. *Council*, 1871-3. *Trans.* 1.

1882 Sheard, William Francis, L.R.C.P. Ed., Clyde House, Putney, S.W.

1884 Sheild, A. Marmaduke, M.B. Cantab., St. George's Hospital.

1867 Shepherd, Frederick, L.R.C.P. Ed., 33, King Henry's road, Primrose hill, N.W.

1859 Shipton, William Parker, Consulting Surgeon to the Devonshire Hospital; Buxton, Derbyshire.

1874 Sinclair, Alexander Doull, M.D., Consulting Physician to the Boston Lying-in Hospital; Member of the Board of Consulting Physicians and Surgeons, Boston City Hospital; 35, Newbury street, Boston, Massachusetts, U.S.

1876 Sirignano, Giosue, M.D., 24, Strada Banchi Nuovi, Napoli.

1874 Skinner, Stephen, M.B., Ferndale, Clevedon, Somerset.

1884 Slater, Druce John, M.B., Portinscale House, Putney, S.W.

1879 Slight, George, M.D., 3, Clifford street, Bond street, W.

1881 Sloan, Archibald, M.B., 272, Bath street, Glasgow.

1876 Sloan, Samuel, M.D., C.M., 1, Newton terrace, Glasgow.

1861 Slyman, William Daniel, 26, Caversham road, Kentish Town, N.W. *Council*, 1881.

Elected

1867 Smith, Heywood, M.D., Physician to the Hospital for Women, Soho square, and Physician to the British Lying-in Hospital; 18, Harley street, Cavendish square, W. *Council*, 1872-5. *Trans.* 6.

1884 Smith, James Murray, M.B., C.M., Wellesley Villa, Romford.

O.F. Smith, Protheroe, M.D., Physician to the Hospital for Women, Soho square; 42, Park street, Grosvenor square, W. *Trans.* 2.

1875 Smith, Richard Thomas, M.D., Physician to the Hospital for Women, Soho square; 53, Haverstock hill, N.W.

1882 Smith, Stephen Maberly, L.R.C.P. Ed., Yarra street, Geelong, Melbourne. [Per Henry M. Smith, 17, St. Bride street, Ludgate circus, E.C.]

1879 Smith, Wm. Hugh Montgomery, L.R.C.P. Ed., 24, London road, West Croydon, Surrey.

1859 Smith, William Johnson, M.D., Consulting Physician to the Weymouth Infirmary and Dispensary; Greenhill, Weymouth, Dorset. *Council*, 1869-71.

1876 Snell, Edmund George Carruthers, 102, Bonner road, Victoria park, E.

1882 Snell, George, L.R.C.P. Ed., Fort Canje, Berbice, B. Guiana.

1868 Spaull, Barnard E., Lynwood House, 47, Hammersmith road.

1876 Spencer, Lionel Dixon, M.D., Bengal Army [care of Messrs. Grindlay and Co., 55, Parliament street].

1882 Spooner, Frederick Henry, M.D., Howard House, Lower Clapton, E.

1876 Spurgin, Herbert Branwhite, 45, Abington road, Northampton.

O.F. Squire, William, M.D., M.R.C.P., 6, Orchard street, Portman square, W. *Council*, 1866-68. *Vice-Pres.* 1876-77. *Trans.* 3.

1884 Stansby, Charles John, M.D., Hamilton, Bermuda.

Elected

1884 STARKIE, RICHARD FRANCIS, M.D., 47, Sussex street, S.W.

1884 STEVENSON, EDMOND SINCLAIR, L.R.C.P. Ed., Rondebosch, Cape of Good Hope.

1877 STEPHENSON, WILLIAM, M.D., Professor of Midwifery, University of Aberdeen; 297, Union Street, Aberdeen. *Council*, 1881-3. *Trans.* 1.

1873 STEWART, JAMES, M.D., 2, Skinner street, Whitby, Yorkshire.

1875* STEWART, WILLIAM, L.R.C.P. Ed., Highfield House, Barnsley, Yorkshire.

1876 STEWART, WILLIAM EDWARD, F.R.C.S. Ed., 16, Harley Street, W.

1879 STILWELL, ROBERT R., M.D., Beckenham, Kent.

1884 STIVEN, EDWARD W. F., M.D., Lincoln House, Harrow-on-the-Hill.

1884 STIVENS, BERTRAM H. LYNE, 37, Princes square, Hyde park, W.

1883 STOCKS, FREDERICK, 421, Wandsworth road, S.W.

1859 STONE, JOSEPH, M.D., 175, Upper Brook street, Manchester.

O.F. STOWERS, NOWELL, 125, Kennington park road, Kennington, S.E.

1866 STRANGE, WILLIAM HEATH, M.D., 2, Belsize avenue, Belsize park, N.W. *Council*, 1882-4.

1871 STURGES, MONTAGUE J., M.D., The Limes, Beckenham, Kent.

1884 SUNDERLAND, SEPTIMUS, M.D., Royal Hospital for Children and Women, Waterloo-bridge road, S.E.

1880 SUTHERLAND, CHARLES JAMES, L.R.C.P. Ed., 16, Frederick street, South Shields, Durham.

1883* SUTHERLAND, HENRY, M.A., M.D. Oxon., M.R.C.P., 6, Richmond terrace, Whitehall, S.W.

1862 SUTTON, FIELD FLOWERS, M.D., Balham hill, Clapham, S.W.

1859 SWAYNE, JOSEPH GRIFFITHS, M.D., Physician-Accoucheur to the Bristol General Hospital; Harewood House, 74, Pembroke road, Clifton, Bristol. *Council*, 1860-61, *Vice-Pres.* 1862-64. *Trans.* 7. *Hon. Loc. Sec.*

Elected

1883 Tait, Edward Sabine, M.B., 1, The Bank, Crouch hill, N. *Trans.* 1.

1879 Tait, Edward W., 54, Highbury park, N.

1871 Tait, Lawson, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women; Consulting Surgeon to the West Bromwich Hospital; 7, The Crescent, Birmingham. *Trans.* 12.

1880 Takaki, Kanaheiro, F.R.C.S., 10, Nishi-Konyachō, Kiōbashika, Tokio, Japan. *Hon. Loc. Sec.*

1871 Tanner, John, M.D., F.L.S., Physician for Diseases of Women, to the Farringdon General Dispensary, and Obstetric Physician to the Lying-in Charity, Holborn; 102, Harley street, Cavendish square, W.

1859 Tapson, Alfred Joseph, M.B. Lond., 36, Gloucester gardens, Westbourne terrace, W. *Council*, 1862-64.

1863 Tapson, Joseph Alfred, Surgeon to the Clapham General Dispensary; 83, High street, Clapham, S.W. *Trans.* 1.

1871 Tayler, Francis T., B.A. Lond., M.B., Claremont villa, 224, Lewisham high road, S.E.

O.F. Tayloe, Edward, South lodge, Clapham common, S.W. *Council*, 1882.

1881 Taylor, F. Perley, F.R.C.S. Ed., Charlotte Town, Prince Edward Island, Canada.

1869 Taylor, John, Earl's Colne, Halstead, Essex.

1871 Taylor, John W., M.D., D.Sc., Rothsay House, Prince of Wales terrace, Scarborough. *Hon. Loc. Sec.*

1872 Temple, James Algernon, M.D., Professor of Obstetrics, Trinity College; Physician to Toronto General Hospital; Physician Accoucheur to the Burnside Lying-in-Hospital; 191, Simcoe street, Toronto. *Hon. Loc. Sec.*

1862 Thane, George Dancer, M.D., 15, Montague street, Russell square, W.C. *Council*, 1881.

1884 Thomas, George H. W., 79, New North road, N.

Elected

1882 THOMAS, HUGH, Cambridge House, Small-heath, Birmingham.

1880 THOMPSON, HENRY, L.R.C.P. Lond., Assistant Surgeon, Hull General Infirmary, 16, Albion street, Hull.

1867 THOMPSON, JOSEPH, L.R.C.P. Lond., 1, Oxford street, Nottingham. *Trans.* 1.

1878 THOMSON, DAVID, M.D., 17, Market hill, Luton, Bedfordshire.

1874 THOMSON, WILLIAM SINCLAIR, M.D., 40, Ladbroke grove, Kensington park gardens, W.

1878 THOMSON, WILLIAM ARNOLD, F.R.C.S.I., The Limes Ampthill, Beds.

1867 THORBURN, JOHN, M.D., M.R.C.P., Professor of Obstetric Medicine, Owens College, Manchester; 62, King street, Manchester. *Council*, 1876-78, 1885. *Vice-Pres.* 1881-3.

1860 THORNE, GEORGE LEWORTHY, M.B., Lenham, near Maidstone, Kent.

1879 THORNTON, J. KNOWSLEY, M.B., C.M., Surgeon to the Samaritan Free Hospital for Women and Children, 22, Portman street, Portman square. *Council*, 1882-3. *Hon. Lib.* 1884-5. *Trans.* 5.

1867 THORNTON, WILLIAM HENRY, Surgeon to the Royal National Hospital for Scrofula; Berkeley Lodge, Margate.

1874 TICEHURST, AUGUSTUS ROWLAND, Silchester House, Pevensey road, St. Leonard's-on-Sea.

1873 TICEHURST, CHARLES SAGE, Petersfield, Hants.

1866 TILLEY, SAMUEL, The Cedars, Cranford, Middlesex.

O.F. TILT, EDWARD JOHN, M.D., Consulting Physician-Accoucheur to the Farringdon General Dispensary; 27, Seymour street, Portman square, W. *Council*, 1867-68. *Vice-Pres.* 1869-70. *Treas.* 1871-2. *Pres.* 1873-4. *Trans.* 7.

1883 TINKER, FREDERICK HOWARD, F.R.C.P. Ed., Brookland House, Hyde, Cheshire.

Elected

1879 Tivy, William James, F.R.C.S. Ed., 8, Lansdown place, Clifton, Bristol.

1872 Tolotschinoff, N., M.D., Kieff, Russia [*per* M. N. Orloff, 3, Bleisho road, Lavender hill, S.W.].

1869 Tomkins, Charles P., L.K.Q.C.P.I., Beddington park, Croydon.

1870 Towne, Alexander, 99, Rectory road, Stoke Newington, N.

1884 Travers, William, M.D., 2, Phillimore gardens, W.

1873 Trestrail, Henry Ernest, F.R.C.S., M.R.C P. Ed., Walmer House, Victoria road, Aldershot. *Trans.* 1.

1884 Troutbeck, James, M.B., Bushey Heath, Herts.

1872 Tuchmann, Maro, M.D., Assistant Surgeon to the German Hospital; 148, Adelaide road, Haverstock hill, N.W.

1865 Turner, John Sidney, Stanton House, 81, Anerley road, Upper Norwood.

1881 Tuthill, Phineas Barrett, M.D., Station Hospital, Gibraltar.

1861 Tweed, John James, Junr., F.R.C.S., 14, Upper Brook street, W.

1874 Underhill, Thomas, M.D., Summerfield, West Bromwich, Staffordshire.

1874 Venn, Albert John, M.D., Physician, Victoria Hospital for Sick Children; Assistant Physician for the Diseases of Women, West London Hospital; 8, Upper Brook street, Grosvenor square, W.

1873 Verley, Reginald Louis, F.R.C.P. Ed., 28B, Devonshire street, Portland place, W.

1879 Wade, George Herbert, Ivy Lodge, Chislehurst, Kent.

1864 Wahltuch, Adolphe, M.D., 8, Acomb street, Greenheys, Manchester.

1860 Wales, Thomas Garneys, Downham Market, Norfolk.

1883 Walker, Alexander, M.D., Hotham House, Putney, S.W.

1877 Walker, George, L.R.C.P., 12, Lingfield road, Wimbledon.

Elected

1866 WALKER, THOMAS JAMES, M.D., Surgeon to the General Infirmary, Peterborough; 18, Westgate, Peterborough. *Hon. Loc. Sec. Council*, 1878-80.

1883 WALLACE, RICHARD UNTHANK, M.B., Cravenhurst, Craven park, Stamford hill, N.

1870 WALLACE, FREDERICK, 96, Cazenove road, Upper Clapton, N. *Council*, 1880-2.

1872 WALLACE, JOHN, M.D., Assistant-Physician to the Liverpool Lying-in Hospital; 1, Gambier terrace, Liverpool. *Hon. Loc. Sec. Council*, 1883-5.

1879* WALTER, WILLIAM, M.A., M.D., Surgeon to St. Mary's Hospital, and the Manchester and Salford Lying-in Hospital; 20, St. John street, Manchester.

1867* WALTERS, JAMES HOPKINS, Senior Assistant Surgeon to the Royal Berkshire Hospital; 43, Castle street, Reading, Berks. *Council*, 1884-5. *Trans.* 1.

1873 WALTERS, JOHN, M.B., Church street, Reigate, Surrey.

1859 WARDEN, CHARLES, M.D., Hon. Surgeon to the Birmingham Lying-in Hospital; 31, Newhall street, Birmingham.

1862 WATKINS, CHARLES STEWART, 16, King William street, Strand, W.C.

1884 WATSON, PERCIVAL HUMBLE, L.R.C.P. Lond., 64, Jesmond road, Newcastle-on-Tyne.

1884 WAUGH, ALEXANDER, L.R.C.P. Lond., Midsomer-Norton, Bath.

1879 WEATHERLY, LIONEL ALEX., M.D., C.M. Aberd., Portishead, Somersetshire.

1867 WEBB, FRED. E., 113, Maida vale, W.

O.F. WEBB, HENRY SPEAKMAN, Welwyn, Herts.

1872 WEBSTER, THOMAS, Malvern House, Redland, near Bristol.

1884 WEDMORE, ERNEST, M.B. Cantab., 23, Davies street, Berkeley square, W.

1876 WEIR, ARCHIBALD, M.D., St. Mungho's, Great Malvern.

1867 WELLER, GEORGE, The Mall, Wanstead, Essex.

Elected

1876 Wells, Frank, M.D., late Professor of Obstetrics and the Diseases of Women and Children in the Cleveland Medical School; Chapel Station, Brookline, Massachusetts.

O.F. Wells, Sir T. Spencer, Bart., F.R.C.S., Surgeon in Ordinary to H.M.'s Household; Consulting Surgeon to the Samaritan Free Hospital for Women and Children; 3, Upper Grosvenor street, W. *Council*, 1859. *Vice-Pres.* 1868-70. *Trans.* 5. *Trustee.*

1876 Wharton, Henry Thornton, M.A. Oxford, 39, St. George's road, Kilburn, N.W.

1870 Wheatcroft, Samuel Hanson, L.R.C.P. Ed., 9, Norfolk street, Strand, W.C.

1860 Wheeler, Daniel, Chelmsford, Essex.

1873 White, Frederick Broad, 15, Maida vale, W.

1882 Wholey, Thomas, L.R.C.P. Lond., London Hospital, E.

1883 Wicks, William Cairns, M.B., 1, Park parade, Newcastle-on-Tyne.

1877 Wigmore, William, 130, Inverness terrace, Hyde park, W.

1867 Wilbe, Richard Haydock, M.D., York Lodge, 21, Finchley road, St. John's Wood, N.W.

1879 Wilkin, John Frederick, M.D., The Warren, Beckenham park, Kent.

1883 Wilkinson, Thomas Marshall, F.R.C.S. Ed., Lincoln.

1879 Willans, William Blundell, F.R.C.P. Ed., Much Hadham, Herts.

1879 Willett, Charles Verrall, 11, Edith road, West Kensington, W.

1872 Williams, John, M.D., F.R.C.P., Assistant-Obstetric Physician to University College Hospital; 11, Queen Anne street, Cavendish square, W. *Council*, 1875-76. *Hon. Sec.* 1877-9. *Vice-Pres.* 1880-2. *Chairman Midwifery Board* 1884-5. *Trans.* 9.

Elected

1881 Willis, Julian, M.R.C.P. Ed., 82, Sutherland gardens, Maida vale, W.

1873 Wilson, John Henry, L.K.Q.C.P. Ireland, Obstetric Physician to the Ladies' Charity and Lying-in Hospital; Kensington Lodge, Kensington, Liverpool.

1860 Wilson, Robert James, F.R.C.P. Ed., 7, Warrior square, St. Leonard's-on-Sea, Sussex. *Hon. Loc. Sec. Vice-Pres.* 1878-80.

1866 Wiltshire, Alfred, M.D., F.R.C.P., Joint Lecturer on Midwifery at, and Assistant-Obstetric Physician to, St. Mary's Hospital, and Physician for the Diseases of Women to the West London Hospital; 57, Wimpole street, Cavendish square, W., and Torridon, Somers road, Reigate. *Council*, 1870. *Hon. Lib.* 1871-3. *Hon. Sec.* 1874-6. *Vice-Pres.* 1877-9. *Trans.* 5.

1877 Wintle, Henry, M.B., Kingsdown, Church road, Forest hill, S.E.

1880 Woodward, G. P. M., M.D., Sydney, New South Wales.

O.F. Worship, J. Lucas, Manor House, Riverhead, Sevenoaks, Kent. *Council*, 1875-77. *Vice-Pres.* 1883-5. *Trans.* 3.

1881 Worthington, George Finch Jennings, M.K.Q.C.P., Sidcup, Chislehurst.

1876 Worts, Edwin, 6, Trinity street, Colchester.

1871 Yarrow, George Eugene, M.D., 87, Old street, E.C. *Council*, 1881-3.

1882 Young, Charles Grove, M.D., New Amsterdam, Berbice, British Guiana.

1861 Young, William Butler, 10, Castle street, Reading, Berks.

CONTENTS.

PAGE

List of Officers for 1885 v
List of Presidents vii
List of Refereees of Papers for 1885 . . . viii
Standing Committees ix
List of Honorary Local Secretaries . . . x
Trustees of the Society's Property . . . xi
List of Honorary and Corresponding Fellows . xi-xiii
List of Ordinary Fellows xiv
Contents lv
List of Plates lxi
Advertisement lxiv
Hours of Attendance at Library lxiv

January 9th, 1884—
Motion of Condolence on the Death of Mr. B. R. Wheatley 2
Uterine Fibroids and Fibro-cystic Tumour: Hysterectomy, shown by Mr. J. Knowsley Thornton . 3
Hæmato-Salpinx; Papillomatous Ovarian Cyst; Abdominal Section, shown by Mr. J. Knowsley Thornton 4
Hæmatocele, the Result of Malignant Disease, shown by Dr. Playfair 6
I. Some Observations on Puerperal Temperatures. By E. S. Tait, M.B. 8

PAGE

February 6th, 1884—
Annual Meeting 23
Chapter XV.—Of the Board for the Examination of Midwives 23
Auvard's Couveuse, or Nest, exhibited by Dr. Matthews Duncan 25
Cancerous Uterus removed by Schroeder's Operation, shown by Dr. William A. Duncan . . . 27
Cephalotribe, shown by Dr. Fancourt Barnes . 27
Annual Meeting: The Audited Report of the Treasurer (Dr. J. B. Potter) 27-28
—— Election of Council and Officers for the year 1884 28
—— Report of the Honorary Librarian for 1883 (Dr. Champneys) 30
—— Report of the Board of Examiners of Midwives for 1883. By Dr. J. H. Aveling . . 31
—— Annual Address of the President (Henry Gervis, M.D.) 33

March 5th, 1884—
Wooden Ring Pessary worn for six years with the Lumen entirely filled up by Deposit, shown by Dr. Horrocks 54
Fibro-cystic Myoma of the Uterus, shown by Mr. J. Knowsley Thornton 54
Uterine Fibroids with Multilocular Ovarian Cysts and Broad-ligament Cyst, shown by Mr. J. Knowsley Thornton 55
Cyst removed from the Vulva, shown by Dr. Galabin for Mr. W. E. Fielden 56
Dermoid Cyst of the Ovary, shown by Dr. Heywood Smith 57
Fibro-cystic Disease of Uterus: Hysterectomy, shown by Dr. Heywood Smith 58
Adherent Placenta, shown by Dr. Robert Boxall . 58
Cyst of Placenta, shown by Dr. Robert Boxall . 59
Ovarian Tumour with Twisted Pedicle, shown by Dr. Robert Barnes 59
II. On the Corroding Ulcer of the Os Uteri. By John Williams, M.D., F.R.C.P. 60

PAGE

April 2nd, 1884—

Specimens Illustrating Spondylolisthesis, shown by Dr. Franz Ludwig Neugebauer, of Warsaw . 84

Resolution to send Addresses of Condolence to H.M. the Queen and to H.R.H. the Duchess of Albany on the death of H.R.H. the Duke of Albany . . 85

Double Dermoid Ovarian Cysts, shown by Dr. Carter 86

III. The Relation of Prolapse of the Vagina to Hernia, illustrated by two Pedigrees. By Alban Doran, F.R.C.S. 88

IV. Upon the Benefits derived from the Induced Current during Parturition. By Walter Kilner, M.B. Cantab., M.R.C.P. (communicated by Mr. W. S. A. Griffith) 93

May 7th, 1884—

Address of Condolence to H.M. the Queen on the death of H.R.H. the Duke of Albany . . . 116

—— —— to H.R.H. the Duchess of Albany on the death of H.R.H. the Duke of Albany . . 116

Deciduous Membrane of Pregnancy, probably from the Unimpregnated Half of a Double Uterus, shown by Dr. Cleveland 117

Angioma of Labium, shown by Dr. Matthews Duncan 118

Ruptured Secondary Cyst in the Wall of a Multilocular Ovarian Tumour, shown by Mr. Alban Doran 118

Rupture of the Uterus and Vagina, shown by Dr Horrocks 119

Fibroid Tumours of the Uterus, shown by Dr. Bantock 119

V. Strong Mental Emotion affecting Pregnant Women as a Cause of Idiocy in the Offspring. By Arthur Mitchell, M.D., LL.D., F.R.S.E. . . 124

VI. Case of Extra-Uterine Gestation—Delivery of Living Child per Vaginam—Removal of Placenta—Recovery. By J. H. Mathieson, St. Mary's, Ontario. (Communicated by Dr. McCallum.) . . 132

VII. Case of Cystic Degeneration of the Cervix Uteri. By Henry Gervis, M.D. . . . 144

PAGE

June 4th, 1884—

Extirpation of the Uterus, shown by Dr. MALINS . 148
Multilocular Ovarian Cyst, shown by Dr. WALTER . 148
A Dilator, shown by Dr. AVELING . . 149
Specimen of Spondylolisthesis, shown by Dr. GRAILY HEWITT and Mr. S. G. SHATTOCK . . 149
Anatomical Description of a Specimen (No. 170) of Spondylolisthesis in University College Museum. By SAMUEL G. SHATTOCK, F.R.C.S. . . 151
Chronic Papillary Inflammation of the Vulva, drawing shown by Dr. PRIESTLEY . . . 156
Cystic Disease of Ovary in its Earliest Stage, shown by Dr. ROBERT BARNES . . . 157
Inversion of Uterus, shown by Dr. J. A. MANSELL MOULLIN 158
Placentæ and Membranes from a Case of Triplets, shown by Dr. HORROCKS . . . 160
VIII. Note on the Absorption, with Ultimate Recovery, of Thrombosis of the Pulmonary Artery in the Puerperal State. By W. S. PLAYFAIR, M.D., F.R.C.P. 162
IX. On Fœtal Revolutions. By J. MATTHEWS DUNCAN, M.D., F.R.S. 171

July 2nd, 1884—

Vesical Calculus, shown by Dr. GODSON . . 181
Portable Transfusion Apparatus, shown by Dr. WALTER 182
Double Uterus with Deciduous Membrane, shown by Dr. CLEVELAND 184
Pedunculated Fibroid, shown by Dr. WILLIAM A. DUNCAN 186
Report on Specimens and Photographs of Spondylolisthesis, shown by Dr. F. L. NEUGEBAUER at the April Meeting 186
X. Fibro-cystic Myoma of Uterus. Septicæmia. By H. A. LEDIARD, M.D. 193
XI. Note on a Condition observed in the Navel Cord of a Young Infant. By JOHN WILLIAMS, M.D., F.R.C.P. 199
XII. Note on the Involution of the Puerperal Uterus in the Absence of the Ovaries. By JOHN WILLIAMS, M.D., F.R.C.P. 203

PAGE

XIII. On Extensions or Retroflexions of the Fœtus, especially of the Trunk, during Pregnancy. By J. Matthews Duncan, M.D., F.R.S., and J. B. Hurry, M.B. . 206

October 8th, 1884—

Broad-Ligament Cysts, shown by Dr. Malins . 228
Pyosalpinx, shown by Dr. Malins . . 228
Fibro-cellular Tumour of Labium, shown by Dr. Potter 228
Ovarian Tumour, shown by Dr. William A. Duncan 229
Uterine Cyst, shown by Mr. W. S. A. Griffith . 229
Pelvis Deformed by Mollities Ossium, shown by Mr. W. S. A. Griffith 230
Glass Injection Tube, shown by Dr. Robert Barnes 232

XIV. On Post-partum Avulsion of the Uterus, with a Case, followed by Recovery. By J. Hopkins Walters, M.R.C.S. 233

XV. A Case of Rupture of the Uterus and Vagina. By P. Horrocks, M.D. 260

November 5th, 1884—

Tubal Fœtation, removed by Abdominal Section, shown by Dr. Sydney Jones for Mr. Lawson Tait . 268
Vascular Fibro-myoma of the Uterus, shown by Mr. J. Knowsley Thornton . . . 269
Soft Myoma of the Uterus showing early Cystic Degeneration, removed by Hysterectomy, shown by Dr. J. H. Aveling 270
Prolapsed Adherent Ovaries, shown by Mr. W. S. A. Griffith 270
Surgical Needles and Holder, shown by Dr. Bantock 271
Pessary for Retroversion and Prolapse, shown by Dr. Godson 272

XVI. On the Severe or so-called "Uncontrollable" Vomiting of Pregnancy. By Graily Hewitt, M.D., F.R.C.P. 273

December 3rd, 1884—

Fibro-myoma of Uterus, shown by Dr. Walter . 326
Dicephalous Fœtus, shown by Dr. Horrocks . 326
Large Fibrous Polypus, shown by Dr. Godson . 328

PAGE

Ruptured Uterus, shown by Dr. CHAMPNEYS . 329
Report on Dr. CLEVELAND'S Specimen of Deciduous Membrane of Pregnancy, shown May 7th, 1884 . 331
Adjourned Debate on Dr. GRAILY HEWITT'S Paper on the Severe or so-called "Uncontrollable" Vomiting of Pregnancy 331

INDEX 351

ADDITIONS TO THE LIBRARY 369

PLATES.

PAGE

I. Corroding Ulcer of the Os Uteri (Dr. JOHN WILLIAMS) . 72
II. Ditto Ditto Ditto . 75
III. Papillary Inflammation of the Vulva (Dr. WM. O. PRIESTLEY) 156
IV. Double Uterus with Deciduous Membrane (Dr. CLEVELAND) 184

WOODCUTS.

Auvard's Couveuse, or Nest (Dr. MATTHEWS DUNCAN) . 26
Spondylolisthesis (Dr. GRAILY HEWITT and S. G. SHATTOCK)
Fig. 1.—Fifth Lumbar Vertebra, showing Absence of Osseous Continuity . . . 150
Fig. 2.—Sagittal Section of Specimen . . 152
Fig. 3.—Specimen as seen from the Outer Aspect . 153
Portable Transfusion Apparatus (Dr. WILLIAM WALTER) . 183
Spondylolisthesis (NOBLE SMITH)
Fig. 1.—Cervical Vertebra, showing Incomplete Union 190
Fig. 2.—Lumbar Vertebra, showing want of Bony Union 191
Fig. 3.—Fifth Lumbar Vertebra, from which the Neural Arch has been Disunited . 191
Fibro-cystic Myoma of Uterus; Outline of Tumour (Dr. H. A. LEDIARD) 194
Ditto; Temperature Chart (Dr. H. A. LEDIARD) . . 195
Navel Cord of a Young Infant (Dr. JOHN WILLIAMS) . 200
Extensions or Retroflexions of the Fœtus, especially of the Trunk during Pregnancy (Dr. MATTHEWS DUNCAN and Dr. J. B. HURRY)
Fig. 1.—Extension of Legs on Thighs (Cruveilhier) . 207
Fig. 2.— Ditto Ditto (Lefour) . 209
Fig. 3.— Ditto of Arms (Murray) . . 210
Fig. 4.— Ditto Ditto (Ahlfeld) . . 211

WOODCUTS (*continued*).

PAGE

Fig. 5.—Extension of the Head . . . 212
Fig. 6.— Ditto (Vrolik) . . 213
Fig. 7.— Ditto Arms and Trunk (Ahlfeld) 215
Fig. 8.—Extension due to Convolutions of the Cord (Hörder) 217
Fig. 9.—Extension due to Amniotic Bands . . 218
Fig. 10.—Retroflexed Fœtus (A. R. Simpson) . 221
Fig. 11.— Ditto (Vrolik) . . 221

Pelvis Deformed by Mollities Ossium (W. S. A. GRIFFITH) . 231

Uterus torn away by Midwife (J. HOPKINS WALTERS) . 239

On the Severe or So-called "Uncontrollable" Vomiting of Pregnancy (GRAILY HEWITT)

Fig. 1.—Development of Normal Uterus (Gehrung) . 317
Fig. 2.—Probable mode of Development of Anteflexed Gravid Uterus (Gehrung) . . 317

ADVERTISEMENT.

The Society is not as a body responsible for the facts and opinions which are advanced in the following papers and communications read, nor for those contained in the abstracts of the discussions which have occurred at the meetings during the Session.

53, Berners Street.

LIBRARY AND MUSEUM,

54, Berners Street, W.

Hours of Attendance: Monday to Friday, 1.30 p.m. to 6 p.m., Saturday, 9 a.m. to 11 a.m., and in the Evenings on which the Society meets, from 7.15 p.m. to 7.45 p.m.

OBSTETRICAL SOCIETY

OF

LONDON.

SESSION 1884.

JANUARY 9TH, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—51 Fellows and 3 visitors.

Books were presented by Mr. Alban Doran, Dr. Matthews Duncan, Dr. Léon Dumas, Dr. B. S. Schultze, the Clinical Society of London, the American Gynæcological Society, and the Council of the University of Melbourne.

Walter Pocock, M.R.C.S., and Adolphus J. Richardson, M.B. (Cantab.), were admitted Fellows of the Society, and Charles Hamilton Hone Cameron, L.R.C.P (Harlesden), was declared admitted.

The following gentlemen were elected Fellows of the Society :—Robert Boxall, M.D., Arthur Henry Boys, L.R.C.P. Ed. (Pill, Bristol), George Henry Darwin, M.R.C.P. Ed. (Didsbury), Edward Angel Gaynes Doyle, L.R.C.P. (Port of Spain), John Challen Duke, M.R.C.S. (Lewisham), James Gubbins Fitzgerald, M.R.C.S. (Bal-

ham), Alexander Forsyth, M.D. (Greenwich), John Alfred Martin, L.R.C.P. Lond., Asutosh Mitra, L.R.C.P. Ed. (Calcutta), and Bertram H. Lyne Stivens, M.R.C.S.

The following gentlemen were proposed for election :— Robert Perriman Fouracre, M.R.C.S., Gilbert Lynch, M.D., Hugh Holland Massey, M.R.C.S., and Charles Ernest Pronger, L.R.C.P. Lond. (Barnstaple).

The PRESIDENT said that, before commencing the business of the evening, he had the sad duty devolving upon him of announcing the death that day of Mr. B. R. Wheatley, the Resident Librarian of the Royal Medical and Chirurgical Society. Up to some years ago, Mr. Wheatley had acted as their assistant secretary from the foundation of the Society, and all he had done for them had been done in the most admirable way possible. He was sure in offering their sympathy to Mr. Wheatley's family in their bereavement he was but expressing the sincere feelings of all the Fellows present.

Dr. MATTHEWS DUNCAN proposed the following resolution :—" That the President be requested to express to the relatives of the late Mr. Wheatley the deep sympathy of the Obstetrical Society with them in the great and irreparable loss which they have sustained."

Dr. PLAYFAIR seconded the motion, and in doing so expressed his great sorrow at the loss which the Society had sustained, which he now heard of for the first time, and with a sense of very painful shock. During the time he had had the honour of acting as President, he had had, of necessity, constant official communications with Mr. Wheatley, and gratefully recorded his obligations to him for his unfailing urbanity and incessant desire to promote the interests of the Society by every means in his power. He was quite certain that every one of his predecessors in office would willingly bear testimony to the same effect, and he was sure that the Society would unanimously and very sincerely pass this vote of condolence with Mr.

Wheatley's family in the sudden calamity that had befallen them.

Dr. Priestley said, in supporting the motion in reference to Mr. Wheatley's death, that he wished to bear his testimony to his invariable courtesy and amiability on all occasions, as well as to his great helpfulness to those who were working and who were seeking references in the library. In this latter respect, he feared his loss would be well nigh irreparable.

The motion was carried unanimously.

UTERINE FIBROIDS AND FIBRO-CYSTIC TUMOUR: HYSTERECTOMY.

Mr. Knowsley Thornton showed the parts removed by hysterectomy, consisting of an enlarged uterus surrounded by multiple fibroids, with right ovary and tube attached, with the stump of a large fibro-cystic tumour of the uterus, which was also shown, and a partly calcified fibroid of the size of a fœtal head, which had to be enucleated in order to apply the serre-nœud.

The patient was a single woman, æt. 55, and had been known to have a large fibroid for twenty-five years, during twenty of which she had been under the observation of Drs. Potter and Lawford. Up to forty the periods were normal; from that time to the change of life at fifty-two they were excessive. From the change of life she enjoyed good health for over two years, and then the fibro-cystic tumour developed with great rapidity. There were very extensive old and recent adhesions, but the patient had no fever or trouble after the operation. The case was especially interesting as illustrating one of the terminations of old-standing fibroid disease of the uterus.

HÆMATO-SALPINX; PAPILLOMATOUS OVARIAN CYST; ABDOMINAL SECTION.

Mr. Knowsley Thornton showed the ovaries and tubes removed by abdominal section from a young married lady, æt. 29.

The patient had always been delicate, had been married three and a half years, and had had one miscarriage at about two and a half months, a year before the present illness. Menstruation was regular up to September, 1883. She then went nine days over her time and thought herself pregnant. On the 9th of October a family trouble caused severe mental upset, and till the 13th she was in an excited state and constantly crying; on that day her husband took her away for change of air, and while in the train pale serous discharge suddenly gushed from the vagina, thoroughly soaking her. This continued till the following night, when she was suddenly seized with severe abdominal pain, and passed a clot of some size from the uterus. She was seen by a medical man, who told her she had a cold in the bladder. The pain gradually decreased, and in November she went to Brighton, coloured discharge being constant. On November 11th she was again seized with severe abdominal pain and was seen by Mr. Jowers, who found complete retroflexion of the uterus, with a large hard tumour in front and to the left, which he believed to be a fibroid. Similar attacks of pain recurred on the 3rd and 13th of December, and the flow increased so that she became very anæmic and exhausted. On the 13th Mr. Jowers examined again per rectum, and detected fluctuation in the tumour. He then sent her up to Mr. Thornton, who found a tumour which he thought might very possibly be a tubal pregnancy on the left side; the uterus was then but little enlarged, and in its normal position, and behind and to the right was a hard tumour which he believed to be the fibroid. The patient was losing a great deal, and after the journey to town passed a large quan-

tity of tar-like blood from the vagina. The husband and wife were both anxious for something to be done, and he determined to explore the abdomen, remove the tumours, and also the second ovary and tube if he found that the fibroid was large enough to cause the hæmorrhage.

The operation was performed on December 29th, Mr. Jowers being present. The uterus was found in normal position and but little enlarged; behind it and to the right a hard irregular tumour, which turned out to be the right tube full of tar-like blood, and adherent to its ovary, which was inflamed and altered, to the omentum and to the tumour in her left side. The tumour in the left side was an enormously distended tube adherent to the uterus, the opposite tube, the floor of the pelvis, and the sigmoid flexure and rectum. Mr. Thornton first secured the ovarian vessels and tube near the uterus, and then enucleated the mass; the blood-clot, of which it was chiefly formed, necessarily breaking up in the pelvis, as the floor of the pelvis formed one wall of the tumour. The ovary was turned into a good-sized cyst with a papillomatous patch just starting from its lining membrane. Both ovaries and tubes were removed; the blood in the right tube was fluid and tar-like and flowed from the uterine end of the tube when it was cut away. This seems to have been the source of the tar-like blood after the journey to town. The clot which formed the tumour on the left side was evidently of varying age, some parts being much more organised than others. No ovum could be found, unless a little clear cyst which escaped while enucleating the tumour was one; unfortunately it was lost after the operation. The coloured discharge continued for a few days after operation, and then gradually ceased, and the patient is now convalescent and rapidly gaining colour and strength.

Mr. Thornton thought the case was a tubal pregnancy, that hæmorrhage took place as the result of the mental upset and grief, and that the cervix being plugged the blood passed back into the tubes, fresh hæmorrhage taking place at each of the attacks on November

11th and 19th and December 3rd and 13th. The escape of the blood after the journey to town probably allowed the retroflexed uterus to regain its normal position, in which he found it at his first examination.

HÆMATOCELE, THE RESULT OF MALIGNANT DISEASE.

Dr. Playfair exhibited a specimen of hæmatocele, associated with and produced by generally diffused malignant disease in the abdominal cavity. The specimen was taken from a girl, æt. 16, from whom Dr. Playfair had removed a large ovarian dermoid tumour on the 18th of April, 1883. There was no peculiarity about the operation; the opposite ovary, the left, was found to be healthy, and the patient made a good recovery, and remained perfectly well until the end of November. During this time she menstruated once, and this was the first and only menstruation she ever had. At the end of November she was admitted into King's College Hospital very seriously ill. The abdomen was enormously tympanitic, and she was suffering greatly from distension. Temp. 101°. Abdomen not painful, but no relief of the bowels had occurred for some time. The pelvic cavity was completely filled by a large fluctuating mass in Douglas's space, pushing down the recto-vaginal septum, and the uterus was pushed forward behind the pubes. It was obvious that this mass, which could just be felt cropping up above the pelvic brim, was compressing the rectum, and so producing inability to empty the bowels. About twenty ounces of sanguineous fluid were removed by aspiration, and this was followed by some relief of the distress and a fæcal evacuation. Soon, however, the symptoms and distress recurred worse than before, and the patient's condition was extremely critical. A second aspiration was resorted to, but now the fluid removed, in

spite of the antiseptic precautions formerly used, was found to be highly offensive. The sac was, therefore, freely opened from the vagina, and a quantity of fluid blood and coagula was discharged, a large drainage-tube being inserted, and iodoform suspended in a solution of Condy's fluid injected. This was followed by great temporary relief and several copious fæcal evacuations. In a few days, however, the patient sank. The autopsy revealed a very curious state. The whole abdominal peritoneum was universally studded with isolated nodules of soft cancerous tissue from the size of a millet-seed to that of a bean. In the centre of most of these there was hæmorrhagic infarction. The liver contained a large number of similar but much larger deposits, some, much softened and hæmorrhagic, being as big as an orange. The pelvis was occupied by a mass as large as a cocoa-nut, its walls being composed of adventitious tissue, and it had ruptured, apparently just before death, at its upper part, and discharged its contents into the peritoneal cavity, in which were found a number of loose blood-clots. On the inner surface of the cyst were numbers of broken-down nodules similar to those on the peritoneum. It appeared that this large hæmatic effusion must have been formed by the discharge of blood from some of these isolated malignant masses which must have developed with startling rapidity; since the girl was apparently well until the latter end of November, when the hæmatocele was first observed, and she died on January 5th. Dr. Playfair said that he was not aware that hæmatic effusion from such a source had ever been previously recorded, and the case seemed to him worthy of record from its rarity and interest. It was worthy of notice that although the right ovary had been removed only seven months before, the pedicle having been tied with stout silk, no trace of the ligature could be anywhere found. Apparently this rapid outburst of disease was entirely unconnected with ovariotomy, and must be considered as a simple coincidence.

SOME OBSERVATIONS ON PUERPERAL TEMPERATURES.

By E. S. Tait, M.B.

The following paper is the result of work done at the General Lying-in Hospital during the latter half of the year 1882. I am indebted to Dr. John Williams and Dr. Champneys for permission to use observations made on the cases which were under their care.

The temperature of each patient was taken every four hours, in the mouth, during the whole of her stay in the hospital.

The cases observed were 125, of whom 60 were primiparæ and 65 multiparæ. Of these 125 cases in 41, or 32·8 per cent., the highest temperatures during the first week occurred on the third day; in 28, or 22·4 per cent., on the fourth day; and in 20, or 16 per cent., on the second day. The others were scattered over the four remaining days, as the following table shows:

	Primiparæ.		Multiparæ.		
1st day	1	...	6	=	7
2nd day	12	...	8	=	20
3rd day	19	...	22	=	41
4th day	14	...	14	=	28
5th day	5	...	4	=	9
6th day	4	...	4	=	8
7th day	5	...	7	=	12
	60	...	65	=	125

The third day, then, is the one on which the highest temperature most frequently occurred; next comes the fourth, and then the second; and this order, it will be observed, holds good for both primiparæ and multiparæ.

In 25 cases, 13 primiparæ and 12 multiparæ, the highest temperature occurred during the second week after delivery. Of these, in 11 cases, the cause was certainly

nervous; and in 2 others almost certainly so; in 6 it was unaccounted for; of the others, 1 was due to acute mastitis, 1 to a "bilious attack," 1 to an abscess in the calf, 1 to septicæmia, 1 to an unhealthy labial tear and sore nipples, and 1 to neuralgia.

So that the high temperatures occurring during the second week were due in great part to nervous causes.

It may here be explained that by nervous causes are meant fright, temper, excitement at seeing friends, &c.

In connection with the days of highest temperature it is interesting to observe whether perinæal tears have any influence in selecting the day on which it occurs:

Of those cases in which there was considerable laceration of the perineum—

In 32·2 per cent. the third day was that of highest temperature.

In 26·0 per cent. the second day was that of highest temperature.

In 22·6 per cent. the fourth day was that of highest temperature.

So that in cases with laceration of the perinæum, as in the cases generally, the third is the most common day of highest temperature, although no marked preference is shown for any special day.

Further, mechanical interference during labour does not appear to affect the day. For of the six primiparæ in which forceps were used, the highest temperature in one was on the second day, in three on the third, in one on the fourth, and in one on the sixth (the latter partly nervous).

Of the three multiparæ in which the forceps were employed, in one it was on the first day, and in two on the second.

Of the three cases in which the hand was introduced into the uterus during the third stage, for removal, in one case of the placenta and in two others of retained chorion, in one the highest temperature occurred on the second day, in one on the third, and in one on the fourth.

Effect of rupture of the perinæum and other tears upon temperatures.

Primiparæ.—In five primiparæ only were there no tears whatever (perinæal, vaginal, or labial) beyond a mere scratch. The average highest temperature during the first few days in these cases was 102·4°.

There were twenty-three cases in which there was more or less severe tear of the perinæum, and in which there had been no mechanical interference during labour. In these cases the average highest temperature was 103·8°.

In seven cases of slight perinæal tear the average highest temperature was 102·6°.

In eleven cases of labial tear the average was 103·7°.

Multiparæ.—In forty-two multiparæ without any tear at all the highest average temperature was 101·2°.

In twelve cases with slight perinæal tears it was 102·9°.

In four cases with more severe tears it was 102·9°.

And in three cases of labial tear it was 100·6°.

It will thus be seen that the average temperature in both primiparæ and multiparæ was markedly lower in those cases in which there was no tear than in those in which a deep laceration had occurred.

In the primiparæ the average temperature of those with slight perinæal tears is scarcely higher than that of those without any appreciable tear. But it will be observed that those with labial tears have a practically equally high average temperature as those with deep tears of the perinæum.

In the multiparæ, on the other hand, the three cases of labial tear had even a lower average temperature than those without any obvious tear, and the average temperatures of those with deep and those with slight perinæal tears are identical.

Influence of mechanical interference during labour on the height of temperatures.

Under the head of mechanical interference is here

included the application of the forceps, and the introduction of the hand into the uterus.

Forceps.—In the six cases in primiparæ in which the forceps were applied the average highest temperature was 104·1°.

In the three multiparæ in which they were used 101·2°.

In all the primiparæ there was more or less laceration of the perinæum, and in one multipara there was a tear, the presentation being occipito-posterior. Therefore in the primiparæ the average temperature was slightly raised (the average temperature of primiparæ with perinæal tears being, as stated above, 103·8°), but in the multiparæ it was precisely the same as in those without any tear.

Introduction of the hand into the uterus during third stage for removal of retained chorion, &c.—This was done in three cases, and the average highest temperature was 103·1°. As in all these three there was some tear of the perinæum, it will be seen that the temperature was not raised by the operation, average highest temperature of primiparæ with perinæal tears being 103·8°.

In six cases rashes appeared, some resembling urticaria, others erythematous. They occurred on various days after delivery, and were not confined to any special part of the body. These rashes did not appear to affect the temperatures.

In the large majority of cases the temperature was highest at the latter part of the day, 2 or 6 p.m., and lowest in the early morning, 2 or 6 a.m. As a rule, the temperatures were higher at 2 or 6 p.m. than at 10 p.m. When the 10 o'clock temperature was higher than the 6 o'clock there was very frequently, though not by any means invariably, inflammation present.

The lying-in woman is peculiarly liable to sudden and rapid rises of temperature, due to purely nervous causes. This is of great practical interest, and is important to

bear well in mind in dealing with puerperal patients, otherwise, at the least, unnecessary alarm may often be caused.

Frequently a temperature that had been normal or nearly so will be found to have quickly risen several degrees, even to 104° or 105°, and with this there will be found no physical signs or symptoms whatever that would account for it, the patient probably complaining of nothing beyond perhaps some headache and a feeling of restlessness. On examination, the breasts and the secretion of milk will be found satisfactory; also the lochia. There will be no tenderness or distension of the abdomen; the bowels will be acting well and the bladder empty; there will be nothing found wrong in the chest nor with any other organ, aud yet the temperature will be perhaps 105°, when a few hours before it had been normal.

In such cases, on careful inquiry, it will almost invariably be found that something has happened to disturb the patient's nervous system, such as a sudden fright, bad news, visit of friends, or perhaps there is some trouble or anxiety. In these cases, when the fright is over or the anxiety removed, the temperature again quickly falls.

Several such instances of what might be called "nervous temperatures" occurred, and accounts of some of the more striking are here given.

To avoid repetition it may here be stated that in all the following cases there were no physical signs that would account for the rises of temperature.

1. M. B—, married, æt. 18, primipara. Dark complexion, fairly well nourished. Labour normal. No tear of perinæum, but rather a deep one in the posterior wall of the vagina. On the third day a piece of retained membrane was expelled from the uterus. The temperature on the fourth day reached 104·6°, after which it gradually dropped till the normal was reached on the ninth day. The temperature continued varying between 98° and 100°, until the twelfth day, when a dispute occurred

in the ward which greatly excited her. The temperature rose from 98° at 2 a.m. to 105° at 2 p.m. By 2 a.m. the next night it had fallen to 99°, but rebounded by 2 p.m. the following day to 104·2°; it then finally fell, being 98·2° at 6 a.m. the next morning.

2. M. C—, æt. 18, married, primipara. Fair-haired; well-nourished. Labour normal. Very slight tear of perinæum. No stitches. She went on very well till the fifth day, the highest temperature having reached 102·4° on the third day. On the morning of the fifth, the temperature was 99·6° It gradually rose during the night, and by 2 p.m. on the sixth it was 104°. She was worrying herself about her friends not having been to see her on visiting day. On the following day the temperature fell to 99·6°. The next day, the eighth, the nurse left who had been looking after her; at this she fretted a great deal, with the result of raising the temperature to 104·6°; it dropped again on the ninth to normal. During this time her general condition was good. There was no bad physical sign or symptom.

3. M. G—, æt. 30, married, 4-para, spare, dark-complexioned woman. Labour normal. No fresh perinæal tear. She was going on perfectly well when on the night of the ninth day she was frightened by a nurse nearly fainting in the ward. The temperature rose from normal to 102·6°, dropping again by the next night to 99°. She complained of a great deal of headache, and there was a red patch on the left breast which gradually disappeared without any trouble, but otherwise there was no pain or bad symptom of any kind.

4. M. M—, æt. 34, married, 3-para, a loud systolic mitral murmur conducted into axilla. Labour normal, but there was considerable dyspnœa. No fresh tear of perinæum. She was doing well, with the exception of the difficulty of breathing, when on the night of the fifth

day she was suddenly awoke from her sleep by another patient calling out. The temperature rose immediately from 99° to 105°. Four hours later it had fallen to 100°, and four hours later still it was 98°.

5. M. B—, æt. 26, married, 2-para. Was delivered in a Hansom cab on her way to the hospital. Slight tear of perinæum. No stitches.

Mastitis threatened in the right breast, but by the eighteenth day the temperature was normal. On the night of the eighteenth day she was frightened by another patient calling out, and the temperature rose from 98·4° to 103·6°, falling again by the next evening to normal.

6. E. G—, æt. 29, single, primipara. Labour normal. Perinæum torn. Temperature varied a good deal during the first few days, but never exceeded 103°. On the ninth day it was normal at 10 a.m. On that day she was allowed to read a novel, and by 6 p.m. the temperature had risen to 104°, dropping by the next morning to normal. It again rose the following night to 103°, falling to normal by the morning, and remaining so until discharge.

7. M. A—, æt. 22, married, primipara. Labour normal. No tear of perinæum, but a shallow longitudinal tear in left labium. There was slight swelling and tenderness in region of right broad ligament, and the temperature on three occasions reached 105°, but on the thirteenth day fell to normal, and remained subnormal until the eighteenth. On that day the patient received a visit from her husband, and the temperature rose to 104·8°. The next day at 2 p.m. it had dropped to 99·6°, again rising during the night to 103°, and falling on the 20th to 98·8°.

8. C. B—, æt. 26, single, primipara. Labour normal. No perinæal tear, but there was a tear in the left labium. The temperature during the second and third days reached 104° and then gradually dropped till on the ninth

and tenth days it varied between 99° and 100°. On the tenth day patient had visitors who brought her bad news, and the temperature rose that evening to 104·2°, dropping to 98° by the twelfth day.

9. M. D—. æt. 22, married, 2-para. Labour normal. No fresh tear of perinæum. During the first day or two the temperature did not rise above 99°, and after that it was usually 98°, on some days being as low as 97.° On the thirteenth day it suddenly rose to 103·8°, and remained high until the sixteeenth day, when it dropped to 98·6°. She was in no pain, and there was no tenderness whatever. Milk secretion satisfactory, and uterus in pelvis. But she was evidently worrying, though it was not found possible to ascertain the cause.

10. M. S—, æt. 19, married, primipara. Labour normal. Perinæum torn. She was a very nervous woman.

On the second day the temperature reached 105°, it then gradually fell till the normal was reached on the ninth day. On that day after a vaginal examination the temperature rose to 104° and fell again by the night of the tenth to 98°. On the morning of the eleventh she received a visit from her husband, and by the evening the temperature was 101·2°, falling again to 98·2° by the morning of the twelfth. On that day some vexatious home news reached her, and the temperature rose to 104·2°, dropping in the night to 100°, but again rising the next day to 104·2° at 2 p.m. The matters that were worrying her were then arranged, and by 10 p.m. temperature had fallen to 98·4°

From the above cases it will be seen that rises of temperature from nervous causes may occur within a few days after delivery, or, as in Case 5, after as long an interval as eighteen days, though in this case the patient was a weakly woman and did not make a good recovery. It will also be seen that they do not specially occur in those who had perinæal tears or difficult labours.

The PRESIDENT congratulated Mr. Tait and the Society on the interesting paper just read. In private practice his own impression was that the average rise of temperature was not so great as it appeared to have been in the lying-in hospital where Mr. Tait's observations were made. The details of the cases in which a distinct rise occurred from nervous causes were of especial interest.

Dr. ROUTH asked—and he did so advisedly—whether the temperature had been taken in the axilla or in the vagina, because both in uterine disease might vary. It was, as a rule, one degree hotter in the vagina, but sometimes the difference between axilla and vagina might be three degrees. Even in ordinary menstruation the vaginal temperature might reach 103°; unless, therefore, the temperature in each part was taken in these puerperal states evil might follow. Moreover, a vagina which was three degrees higher in temperature than in the axilla, in itself pointed to disease about the uterus, or at least excessive vascular action.

Dr. JOHN WILLIAMS said that this valuable paper had shown two facts, first that high temperatures were more frequent in cases in which the perinæum had been deeply torn; and second that rises of temperature were associated with nervous conditions during the puerperal state. The cases which Dr. Tait had read appeared to him to establish these two facts. Very little was known of puerperal temperatures, and there were many points with regard to which it was important to obtain accurate knowledge. It was frequently said that tears of the cervix were causes of high temperature; the inquiry into this point was a very difficult one, because tears of the cervix were so frequently associated with other lesions which occasioned high temperatures, such as tears of the perinæum. Although tears of the cervix were very common, yet cases which served to settle their position with regard to high temperatures were rare. Dr. Williams, however, thought that they were rarely cases of fever. Again, the relation of fœtid discharge to fever was an important point. In a large number of cases the fœtor came on after the onset of the fever and not before it, so that in these cases it may fairly be inferred that the character of the discharge is the result and not the cause of the febrile state. The temperatures are taken every four hours in the General Lying-in Hospital, and the fact stated is proved by observations made there.

Dr. GALABIN thought that the evidence brought forward in the paper was very valuable, but that it would be of great interest also if it were possible to compare the temperatures observed in private practice with those in a lying-in hospital. His own impression, derived from a small number of cases observed by himself, and from some observed by the extern attendants in the Guy's Hospital Lying-in Charity, was that the range of temperatures was not so high as those recorded by Mr. Tait. He

had often been struck by the entire absence of that rise of temperature about the third day which some had regarded as a normal occurrence, and had found that most of the cases which ran an apparently natural course never had any elevation of temperature beyond one or two degrees. It was to be remembered, however, that it was rarely possible, except in a lying-in hospital, to take temperatures habitually so often as every four hours. With regard to rise of temperature from nervous causes he doubted whether this cause was always unmixed. He thought that it sometimes supervened upon some tendency to septic disturbance and combined with it in its effects. He related a case of a lady who had appeared to go on well for two weeks after her confinement, and so had passed the time within which any risk of septicæmia was generally to be feared. She was then excessively agitated at one of her children being nearly choked with a grape while alone in the room with her. A sudden rise of temperature followed, but the fever did not so quickly subside. Symptoms of septicæmia came on and the case ended fatally. He thought that this would not have happened if the local conditions had been perfectly healthy at the time of the fright.

Dr. Graily Hewitt thought the facts related by the author as to rise of temperature from emotional disturbance most important. A few months ago he had seen in consultation a case which was instructive in this particular. Delivery had been natural, and up to six days after progress entirely satisfactory; on that day the lady was much disturbed by an organ-grinder who refused to go away, and she became much excited. The temperature rose immediately, and a severe attack of puerperal septicæmia set in. Her life was saved with difficulty. The question arose, What was the physical effect of the mental disturbances in such cases? He would suggest that it was probably temporary relaxation of the uterus and consequent absorption of septic material. This involved ideas on the subject opposite to those just expressed by Dr. Williams. All that he had ever seen favoured the idea that in puerperal septicæmia the septic material was absorbed before the fever originated.

Dr. Daly said he differed from Dr. John Williams in the opinion which he had just stated that in puerperal cases fever preceded the fœtid discharge. On the contrary, he believed the opposite was the case: that fœtid discharge preceded and caused the fever and rise of temperature. This was proved by the effect of treatment. It must be familiar to everyone how a patient with fœtid discharge, fever, and even a very high temperature, was often cured in one day by washing out her uterus with solution of iodine, carbolic acid, or Condy's fluid. Such cases were quite common and well known. With regard to the temperature-charts in the paper, he believed, from a great many observations in private practice, extended over a number of years, that the

range of temperature, as a rule, was higher in hospital than in private practice.

Dr. Playfair said that he should not like to allow so important a practical paper to pass without making a few remarks. He had long been satisfied that there was much yet to be learnt as to puerperal temperatures. Probably there was no one in the room who had not occasionally been made very anxious as to his cases by finding an abnormally high, possibly an excessively high, temperature, and being soon relieved by observing its rapid fall and ultimate complete recovery, without anything farther occurring or without discovering any cause for its occurrence. That many of these cases were to be explained by emotional disturbances, as Mr. Tait had pointed out, he was quite satisfied was true. He had himself observed this time after time in private practice, and it was reasonable to suppose that such an event would be more common in the wards of a lying-in hospital, when from an aggregation of patients and other causes, the patients were not kept as quiet and secluded as in private practice. What Mr. Tait had thrown no light on was the question—and it was one of primary importance—How are we to distinguish such transient and unimportant elevations of temperature from the more serious pyrexia of septic mischief? It would be an immense relief to practitioners and save them many an anxious moment if such a distinction were possible. He was afraid that it was not always so. One point, however, which Mr. Tait had not mentioned, was that in the most formidable form of elevated temperature, followed by lengthy and dangerous illness, there was always an initial rigor which was absent in transient emotional pyrexia. It might be marked, or it might be so slight as to escape observation until carefully inquired after, but it was rarely if ever absent. It might also be observed that rises of temperature from emotional causes were by no means confined in women to the puerperal state. The depression connected with it no doubt predisposed to it, but the same thing might often be observed in other conditions, such as in women suffering from various hysterical and neurasthenic conditions. Besides emotional causes there were many others quite capable of raising the temperature for the time in a puerperal patient, such as loaded bowels, an indigestible meal, retention of urine, and many others, so that unless the pyrexia were continuous, if unaccompanied by other symptoms, it was by no means necessarily a symptom of serious import. With reference to the startling theory Dr. Williams had propounded, that fœtid lochia and offensive discharges were often the result, and not the cause, of pyrexia during the puerperium, he was not in a position to offer any opinion, since he now heard it broached for the first time, and he knew of no facts to justify it. He trusted, however, that no one would be tempted by this assertion to underrate the import-

ance of foul and bad-smelling discharges after labour. Certainly this often existed without mischief arising, but he was perfectly certain that they were a very dangerous occurrence in any lying-in woman, and no such woman could be considered safe under such conditions.

Dr. Godson quoted a case which had occurred lately in his practice in which, on the tenth day after labour, a violent rigor occurred suddenly, followed by the temperature rising to 103·4° F. This was easily traceable to an emotional cause, the following day the temperature falling to normal and remaining so. He considered it very exceptional for a rigor to precede a rise of temperature due to emotion. It appeared from Dr. Tait's paper that laceration of the perinæum and vagina were very frequent at the General Lying-in Hospital; this was worthy of note, the friends of patients being too apt to attribute such to neglect on the part of the medical attendant.

Dr. Priestley said that such records as those of Mr. Tait were likely to be extremely useful and deserved all encouragement. One of the points which struck him in hearing the paper was the notable way in which the puerperal temperature was raised from emotional causes, as apart from those of more serious import. It had long been a tradition of the lying-in room that the puerperal woman ought to be shielded, not only from external agencies which might do physical harm, but also from everything which might produce mental perturbation or alarm. The records of increased temperature from emotional causes demonstrated in the paper showed that though the disturbance so produced had happily been transitory, yet it was real, and consequently it was absolutely necessary to protect the lying-in woman during convalescence from all mental anxieties. Another inference to be drawn from the paper was, that the mere rise of temperature in a puerperal patient is not an absolute indication of peril. All practitioners must have been sensible of alarm on finding the temperature of a patient after delivery rising to 102° or 103°. The clear deduction from the facts observed by Mr. Tait was, that rise of temperature was only a unit among other symptoms, and that unless preceded by a rigor and accompanied by abdominal tenderness, quick pulse, anxious countenance, with other signs of pyrexia, it was not an invariable guide as to the presence of danger, and might be looked upon with less alarm, as possibly only transitory or fugitive in its character.

Dr. Matthews Duncan called attention to the value of a regularly constructed chart as against isolated observations. Such a chart would prevent errors from temporary elevations from nervous causes, and correct errors founded on temporary depressions. Such depressions, even to below normal, might occur in the course of septicæmia and had been specially noted

when suppuration was going on. He was quite sure that in private practice as great variations of temperature were observed as in hospitals. The novel doctrine of Dr. John Williams that the fever caused the putridity of discharge he could not, meantime at least, adopt. All his ideas were unfavorable to its reception. Putridity was not an essential part of the worst kind of infecting material. Infection by putridity could, he believed, be proved to begin with the taking in of the poison, and to cease very soon, within a very few hours, after stoppage of the supply of the poison; all this only if the poisoning was mere putrid intoxication, sapræmia, without septicæmia in addition.

Dr. Champneys observed that difficulties of diagnosis and prognosis centred on the third day, on which the bowels, the milk, and any surgical injuries would combine to raise the temperature. Indeed, the difficulty of diagnosis and prognosis was the chief difficulty in these cases, the treatment not admitting of much variation. In many cases diagnosis and prognosis at the commencement of the pyrexia were impossible, but were best aided by the aspect of the patient, the character (rather than the rate) of the pulse, and the tongue. Rashes were too large a subject for discussion now; they were very common, often quite undistinguishable from the exanthematic rashes which they simulated (especially as regards scarlet fever, a congested state of the fauces being by no means uncommon), and could only be diagnosed as they progressed. In some cases they simulated three or four different rashes in turn. Without a vaginal examination it was impossible to say that a rise of temperature was not due to pelvic inflammation; such inflammations are often quite ephemeral, and he had seen them run their course and end in recovery in three days; it had often occurred to him to find that a temperature which he had thought due to other causes was really due to pelvic inflammation. No woman was discharged from the General Lying-in Hospital unexamined, and the statements in the paper might be considered free from the above error. It is quite possible that a pyrexia due to psychical causes may lead to physical consequences, such as inflammation, or rather that the pyrexia and inflammation may be due to a common psychical cause. With regard to the comparison between temperatures in hospital and in private practice made by some speakers he begged leave to doubt all such statements until four-hour charts furnished evidence in private practice. To take a temperature once or twice a day was like surveying a country by taking the elevation every one hundred or every fifty miles, and could not be taken in evidence against a survey six or three times as exact. He had in his possession evidence to the contrary as regards private practice, though not to the same amount. The great proof that these "nervous" temperatures were not due to septic absorption as suggested by

Dr. Graily Hewitt, was that he could recollect no single case of infection of one patient from another in the General Lying-in Hospital, and that since Dr. John Williams and he had had charge of the hospital (three years) the mortality had been 1 in 130—40, a result which compares favorably with private practice. Again, a rise of temperature for a few hours only can hardly be regarded as due to septic absorption. Rigors are no doubt alarming, but they are not at all uncommon immediately after labour and often mean nothing. A remark was made about the less favorable condition of patients in a hospital as compared with their homes. It is true that patients are not so completely isolated in hospital, and that an attack of puerperal fever in a hospital has to be considered as a possibility, besides the chance of one woman exciting or otherwise disturbing another, but against this has to be put the constantly skilled attendance and antiseptic treatment which hospital patients certainly do not get in their own homes, and the mortality in good lying-in hospitals is becoming (in spite of their receiving selected bad cases) less than that in private. As regards the objection to the use of the thermometer in private, a nurse who is not skilled in its use is a very useless person, but in addition to a thermometer she should also be the possessor of good judgment and common sense, and keep her notes to herself. As regards fœtor, it is useful as a means of attracting our attention, and such lotions as deodorise without disinfecting are positively injurious: they cut the rattle off the snake without drawing his fangs.

Dr. Wynn Williams considered the author of the paper was to be congratulated on having created such an interesting discussion, which had been the means of eliciting the somewhat contradictory opinions of those taking part in it. He believed that those contradictory views were capable of explanation, but in order to do so he would ask the Fellows to leave the domain of obstetrics and enter upon that of surgery. A man meets with a serious accident followed by shock, and at the onset collapse with diminished temperature, then reaction with increased temperature. Should pus be formed and evacuated, the temperature for a time diminished, to be followed by increased temperature as the reparative process proceeded, but should septic poison be introduced from any cause there would be rigors with diminished temperature, and in severe cases without any reaction taking place. From experiments carried out some years ago on guinea-pigs with septic poison, he could positively assert that when septic matter was injected into the cellular tissue over the abdomen, in most cases mortification set in immediately and the animals never rallied. Now, the same state of things may occur during the puerperal state. According to Dr. John Williams, septicæmia was preceded by an increase of temperature; this might happen during the separation of any bruised tissue or slough, but if septic

matter should come in contact with the wound and be absorbed it would be followed by rigors with diminished temperature. He, however, quite agreed with Dr. Matthews Duncan that septic poison might enter into the circulation directly, without any previous complication excepting the presence of putrid or septic matter, causing in the first instance rigors and diminished temperature.

The PRESIDENT, in calling upon Mr. Tait to reply, wished to add one or two observations to those he had already made. In a series of very careful thermometric observations made some years ago in the St. Thomas's Extern Maternity at the desire of Dr. Richardson, the average rise was certainly not nearly so high as appeared to be the rule in Mr. Tait's cases. In this and his previous reference to private practice he was speaking of average and not of exceptional cases. On the question started by Dr. Williams as to the febrile disturbance preceding the offensive discharge, in the class of cases in which the infection was brought from without, the heterogenetic, he could quite understand that this might be the case, and that an offensive discharge due to necrotic endometritis might follow and not precede the irritation of the fever by the conveyance of septic material, *e.g.* to a perineal tear.

Mr. E. S. TAIT.—Many of the points raised during the discussion have been already met by other speakers. Dr. Galabin draws attention to the fact that the recorded temperatures in lying-in hospitals are frequently higher than those usually met with in private practice. This is to be explained to some extent, I think, by the greater frequency and regularity with which the temperature is taken in the case of hospital patients. Thus if, as in the General Lying-in Hospital, the temperature be taken six times in the twenty-four hours, and if, as is common in private practice, only once or twice in that time, the chances would be as six or three to one of detecting a rise of temperature in the hospital patient. Dr. Graily Hewitt suggests, as a possible explanation of some of the high temperatures attributed to a purely nervous origin, that, as the result of shock or emotion, the uterus may temporarily relax and admit of septic absorption taking place. The great rapidity of the rise and fall of the temperature in some of the cases quoted goes far, I think, to negative this theory. The absence of preliminary rigor is drawn attention to by Dr. Playfair in distinguishing these cases of "nervous" temperature from those pointing to a more serious cause. In many of these cases the presence of grave lesion scarcely suggests itself, the patient looking and feeling comparatively well; and the fact of the rise of temperature would often pass unnoticed if it were not for the diligent use of the thermometer.

ANNUAL MEETING.

FEBRUARY 6TH, 1884.

HENRY GERVIS, M.D., President, in the chair.

Present—70 Fellows and 10 visitors.

The PRESIDENT declared the ballot open for one hour, and appointed Peter Horrocks, M.D., and William A. Duncan, M.D., as Scrutineers.

Dr. AVELING protested against the name of the Chairman of the Board for the Examination of Midwives being placed on the balloting list among those officers who are elected by the Society.

A new Chapter of Bye-laws, "Chapter XV of the Board for the Examination of Midwives," was submitted to the meeting by the President. Some alterations were proposed by Dr. Aveling, one of which was adopted, and the Chapter of Bye-laws was carried as follows:

"CHAPTER XV.—OF THE BOARD FOR THE EXAMINATION OF MIDWIVES.

"I. The Board shall consist of a Chairman, three non-official Members, and the President and Secretaries *ex officio*. Their duty shall include the management of all matters connected with the examination of midwives, and they shall be elected annually by the Council.

"II. One of the non-official Members of the Board shall retire annually, in order of election, and shall not be re-elected till after the lapse of one year. Any non-

official Member who shall not have attended half at least of the Meetings of the Board during the year shall also cease to be a Member of the Board.

"III. The Chairman after four years' service shall retire, and shall not be re-elected till after the lapse of one year. During his term of office he shall be *ex officio* a Member of the Council.

"IV. The Board shall meet quarterly—in January, April, July, and October.

"V. Candidates shall be admitted to the examinations on such conditions, and be examined on such subjects, and in such manner, as the Council shall determine."

Books were presented by Mr. J. M. Barton, Mr. W. S. A. Griffith, Dr. B. W. Richardson, St. Bartholomew's Hospital Medical Staff, and the American Gynecological Society.

J. Hewetson Bertolacci, L.S.A., M. Handfield Jones, M.R.C.P., and Edmund Henry Pettifer, M.R.C.S., were admitted Fellows; and Arthur Henry Boys, L.R.C.P.E. (Pill), George Henry Darwin, M.R.C.P. (Didsbury), F. Richard Eccles, M.R.C.S. (Ontario), James G. Fitzgerald, M.R.C.S. (Balham), Alexander Forsyth, M.D. (Greenwich), Edward J. Jenkins, M.B. Oxon. (Sydney), Arthur Newsholme, M.D. (Clapham), and Alexander Walker, M.D. (Putney), were declared admitted.

The following gentlemen were elected Fellows of the Society:—Robert Perriman Fouracre, M.R.C.S., Gilbert Lynch, M.D., Hugh Holland Massey, M.R.C.S., and Charles Ernest Pronger, L.R.C.P. (Barnstaple).

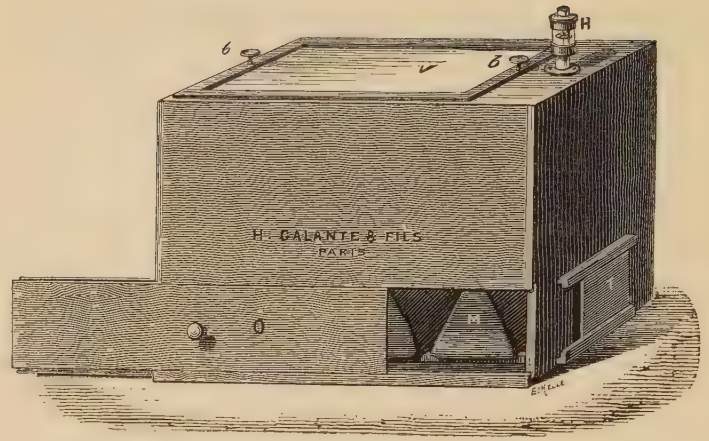
The following gentlemen were proposed for election:—John Davies, M.R.C.S., John J. Eyre, L.K.Q.C.P. (Forest Hill), Francis Henry Hawkins, M.B., James Jackson, M.R.C.S., William Cooper Keates, L.R.C.P. (Dulwich), Arthur Oakes, M.D., Robert James William Oswald,

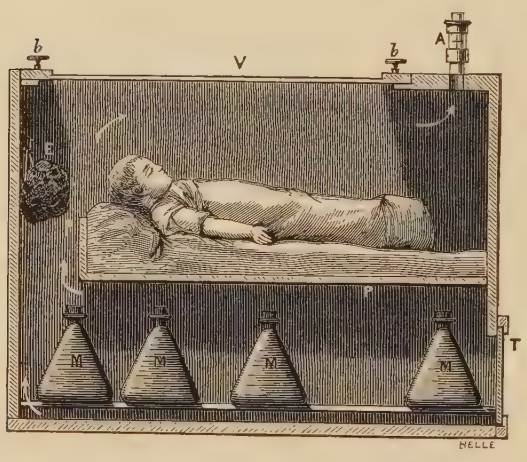
L.R.C.P. Ed., and A. Marmaduke Shield, M.B. Cantab., F.R.C.S. Eng.

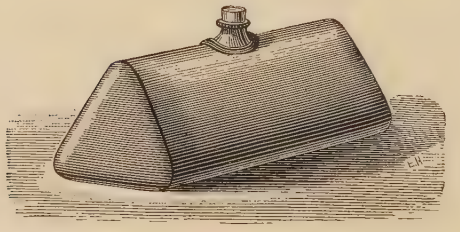
AUVARD'S COUVEUSE, OR NEST.

Dr. Matthews Duncan exhibited the nest or incubator of Dr. Auvard. Such machines had been for some years used by Dr. Tarnier, and Dr. Auvard's was an improvement on that used in the Maternity of Paris. Every obstetrician felt keenly the difficulties of nursing feeble and premature and diseased children; and this machine was planned to overcome one of these difficulties, that of maintaining a uniform temperature. He would not have brought the machine before the Society were he not convinced that it was simple, cheap, and useful. Dr. Auvard had, in his pamphlet, the great statement in evidence of its utility, that among children under 2000 grammes at birth, the mortality in the early weeks was reduced by it from 65 per cent. to 38 per cent. Physicians differed as to the temperature to be kept, some using it about 86°, some as high as 93°. The child placed in it was clothed, the clothes keeping about the child an atmosphere intermediate in heat between that of the machine and the body-heat. In general respects the child was managed as usual. Winckel had used a permanent warm water bath; but his method had, as yet at least, not been imitated, for it was troublesome and without the advantages of the warm air plan. Auvard's machine was kept warm by hot water bottles, one of which had to be renewed occasionally about every two hours. Ventilation was kept up and watched by a little anemometer. The air was moistened by passing over damp sponges. Any ordinary nurse could manage easily the whole matter.

Dr. Fancourt Barnes had seen a "couveuse" in action in the service of Dr. Ribemont Dessaignes at the Hôpital Tenon. He believed that Professor Tarnier was the originator of the couveuse, not Dr. Auvard.


H
6
V
6
H. GALANTE & FILS
PARIS
O
M


b
V
b
A
E
P
M
M
M
M
T
HELLE



CANCEROUS UTERUS REMOVED BY SCHROEDER'S OPERATION.

Dr. William A. Duncan showed an entire uterus with fungating epithelioma of the cervix, which he had removed by Schroeder's operation per vaginam. The patient recovered without a bad symptom and got up on the twenty-first day after operation.

The President hoped Dr. Duncan would report the case fully to the Society, and bring forward the important subject of the treatment of cancer of the uterus in a paper.

CEPHALOTRIBE.

Dr. Fancourt Barnes showed a cephalotribe he had had made for him by Wright and Co. It was a long instrument with a French lock, and had the perineal curve, and Aveling's, or the handle curve. It was easy to apply, and allowed traction to be made in the axis of the pelvis.

Dr. Barnes said that he had quite recently had the opportunity of putting this cephalotribe to a practical test. He had been called to a case of very contracted pelvis in which a skilful practitioner had failed to deliver with Dr. Barnes's forceps. He himself then tried Tarnier's forceps, and also failed to move the head. He therefore perforated, and applied this cephalotribe. It seized well above the brim and the base of the skull, which was heard to crack under the screw. It worked admirably, and had the advantage over Braxton Hicks's and other instruments of admitting of the blades reaching well in the axis of the brim above the symphysis, whilst traction was facilitated by Aveling's curve. He thought this cephalotribe might be stamped "Probatum est."

Annual Meeting.

The audited balance-sheet of the Treasurer, Dr. Potter, was read.

BALANCE-SHEET OF THE OBSTETRICAL SOCIETY OF LONDON.

(Abstract of the Receipts and Expenditure for the year ending December 31st, 1883.)

1883. RECEIPTS.	£	s.	d.
To balance in hand from 1882:			
At Bank	198	2	11
Cheques cleared since December 31st, 1882	8	8	0—206 10 11
(1) 640 Subscriptions at £1 1s. (including 1 at £1 2s. and 1 at £1 1s. 3d.) received during 1883			672 1 3
(2) 4 Composition Fees at £10 10s.			42 0 0
(3) Midwifery Examination Fees			58 8 0
(4) Sale of 'Transactions' and 'Rules for Infant Management' (Longmans)	49	1	7
Do. Rules Do. (Society)	2	2	8— 51 4 3
(5) Interest on 3 per cent. Consols January, 1883	£18	18	8
July, 1883	19	3	7— 38 2 3
(6) Sale of Old Furniture			2 11 0
Amount of stock standing in the names of the Trustees, 3 per cent. Consols	£1305	14	0
			£1070 17 8

By EXPENDITURE.	£	s.	d.
(1) 'Transactions,' Vol. XXIV, Printing, Lithography, Paper, and Binding, Index, and delivery of Volume			279 2 2
(2) Library: Books Purchased and Binding			55 3 0
(3) Museum and Library: Rent	£132	12	2
Librarian, Salary and Commission	120	6	9
New Furniture, Alterations, Repairs, Cleaning, Coals, &c.	128	2	2
Insurance (7 years)	6	0	0
Petty Cash Expenditure	2	14	8—389 15 9
(4) General Meetings and other Expenses: Meeting-room	£42	0	0
Expenses of Meetings	22	8	0
Stationery and Postages	44	11	0—108 19 0
(5) Examination of Midwives: Expenses of			6 19 9
(6) Extraordinary Expenses: Law Expenses *re* 54, Berners Street	14	8	8
Moving to 54, Berners Street	7	18	0— 22 6 8
Banking Expenses	0	5	7
Cheque-book	0	4	2— 0 9 9
Balance in hand at Bankers	£207	0	7
Cheque not cleared	1	1	0—208 1 7
			£1070 17 8

January 24th, 1884.

Examined and found correct,

W. A. MEREDITH,
A. T. GIBBINGS,
ALFRED L. GALABIN,
} *Auditors.*

It was moved by Mr. J. KNOWSLEY THORNTON and seconded by Dr. BRUNTON, and carried unanimously, "That the audited report of the Treasurer just read be received, adopted, and printed in the next volume of the Transactions."

The Scrutineers retired, and on their return the President declared the result of the ballot for officers and Council for the ensuing year to be as follows :

Honorary President.—Arthur Farre, M.D., F.R.S.

President.—Henry Gervis, M.D.

Vice-Presidents.—John Brunton, M.D., Frederick Henry Daly, M.D., Alfred Lewis Galabin, M.A., M.D., Clement Godson, M.D., Edward Malins, M.D. (Birmingham), J. Lucas Worship (Sevenoaks).

Treasurer.—John Baptiste Potter, M.D.

Honorary Secretaries.—George Ernest Herman, M.B., Francis Henry Champneys, M.A., M.B.

Honorary Librarian.—John Knowsley Thornton, M.B., C.M.

Chairman of the Board for the Examination of Midwives.—John Williams, M.D.

Other Members of the Council.—James H. Aveling, M.D., George Paddock Bate, M.D., Peter Lodwick Burchell, M.B., T. Edmondstoune Charles, M.D. (Cannes), Robert Cory, M.D., Charles James Cullingworth, M.D. (Manchester), Alban Doran, John T. Griffith, M.D., James Hickinbotham, M.D. (Birmingham), Henry Thomas Lanchester, M.D. (Croydon), Henry M. Madge, M.D., Gustavus C. P. Murray, M.D., William S. Playfair, M.D., George Roper, M.D., David Elphinstone Seton, M.D., William Heath Strange, M.D., John Wallace, M.D. (Liverpool), James Hopkins Walters (Reading).

The report of the Hon. Librarian, Dr. Champneys, was then read.

Report of the Honorary Librarian.

I have the honour to report to the Society the continued expansion of the Library and its extended use by the Fellows. In addition to many donations which have been accepted and duly acknowledged, the Library Committee have endeavoured, by the purchase of suitable works falling within the domain of obstetrics and gynæcology or closely related to those subjects, to render the Library worthy of the Obstetrical Society of the metropolis.

At the end of the year 1882 there were 3160 volumes in the Library. During 1883 the donations amounted to 18 volumes and 33 pamphlets, making a total increase of 22 donations. The Society also purchased 41 books and 4 pamphlets, or 45 volumes. These, together with 55 periodicals, bring the whole number of volumes at the end of 1883 to 3282, being a total increase of 122 volumes.

Towards the end of the year a letter was sent by the direction of the Honorary Librarian to the editors of all periodicals purchased by the Society, suggesting an exchange with the 'Obstetrical Transactions,' a proposal which promised mutual advantage. Favorable answers have been received from the following: 'London Medical Record,' 'Revue des Sciences Médicales,' 'Union Médicale,' 'Gazette des Hôpitaux,' 'Gazette Médicale de Paris,' 'Zeitschrift für Geburtshülfe und Gynäkologie,' 'Centralblatt für Gynäkologie.'

A large number of volumes of the Society's 'Transactions' for past years remain in the possession of the Society, and it is hoped that an arrangement may be made by which these may be purchased at a reasonable rate by Fellows who desire to acquire the past volumes.

The most important event of the year has been the removal of the Library from Regent Street to Berners Street. By this arrangement it is hoped that the Society has gained many advantages, among which may be mentioned a saving of expense, the acquisition of a larger

and better set of rooms, and the close proximity of the Library of the Royal Medical and Chirurgical Society. In this connection it is impossible to abstain from mentioning the sad death of Mr. Wheatley, who continued to take an interest in and in many ways to help the Obstetrical Society, even after the cessation of his official connection with it.

It is hoped that the details of the arrangement of the rooms will have met with the approval of the Society.

F. H. Champneys.

Dr. Aveling, in moving the adoption of the Librarian's report, said that the attempt of the Society to obtain a transcript of James Woolveridge's work on midwifery, Dublin, 1670, had failed, the man whom Dr. Fordyce Barker had employed to copy the book having absconded with the volume and died in Europe. By this loss of the only known copy of Woolveridge's work it is to be feared the earliest original work on midwifery in the English language has been irretrievably lost.

The adoption of the report was seconded by Mr. Frederick H. Gervis and carried unanimously.

The report of the Chairman of the Board for the Examination of Midwives was then read.

Report of the Board of Examiners of Midwives for 1883.

The Board of Examiners of Midwives have to report that during the past year sixty-four candidates have applied for the diploma of the Society. Of this number eleven have failed to satisfy the Examiners, and fifty-three have been considered to have sufficient knowledge to enable them to attend natural labour with safety. This is a larger number than has been before the Board during any previous year.

The Chairman, in retiring from the Board, upon which he has served (with the exception of one year) from its

establishment in 1872, wishes to convey to his colleagues his thanks for their courtesy and kind assistance. The work performed by the Board is done silently and unobtrusively, and were it not for the Annual Report and the addition which the fees of the midwives make to the income of the Society, Fellows would know nothing about its doings.

The Chairman would respectfully suggest that the members of the Board present at examinations should in the future be remunerated for their services. He makes this proposition now because it must be evident that he suggests the measure not from any motive of self-interest, but as an act of justice to those who are to carry on this special work of the Society hereafter.

J. H. Aveling, M.D.,
Chairman of the Board of Examiners of Midwives.

Dr. Playfair had much pleasure in proposing "the adoption of the Report."

He was quite certain that this view would meet with more than usually cordial assent from the Society. For many years Dr. Aveling had identified himself with the Society's scheme for an examination of midwives, and had worked at it with a zeal and assiduity which well merited the most cordial thanks the Society could bestow. Now, in the lapse of time, he was about to retire from the chairmanship of the Examining Board, but it was satisfactory to know that the Society would not be deprived of his knowledge and advice as his name was included in the new list of councillors.

The motion was seconded by Mr. Alban Doran and carried unanimously.

The President then delivered his Annual Address.

ANNUAL ADDRESS.

Gentlemen,—We celebrate this evening the twenty-fifth anniversary of our Society. It was inaugurated at a meeting held in Freemasons' Hall in December, 1858; and on the 5th of January, 1859, its first public meeting took place. For many years it was customary to hold the annual meeting in January, but the occasional occurrence of the 1st of January on the first Wednesday of the month proved a source of social inconvenience, and we now, as we do this evening, hold our annual meeting in February. We have therefore fairly entered upon our second quarter of a century. It is customary among the married—and the customs of the married cannot be without interest to the Fellows of this Society—to take special note of the twenty-fifth wedding-day, to speak of it as the "silver wedding," and to receive thereon the congratulations of friends. For twenty-five years this Society has been wedded to the ascertainment of truth, and the union has been attended with the happiest results. Within this period of time obstetric medicine has advanced almost by leaps and bounds, and very much of this advance has been due to the influence, direct and indirect, exercised by our Society. I think, therefore, that this evening we may fairly congratulate ourselves on the retrospect, and anticipate the future with an assured satisfaction. The work of the Society during these twenty-five years has, without question, more than justified the prescience of those distinguished men who at the inaugural meeting gave the initial impulse to its formation. It is not, however, my purpose now to refer with any detail to the work we have accomplished in the more distant past, as I ventured to make some reference to this when entering on the duties of this chair in March of last year; but I am gratified in

being able to state that in numbers, finance, and position we show no sign of decadence, and that the volume which will shortly be issued containing the records of our past year's work may vie with any of its predecessors in interest and importance. As regards numbers, during the year fifty-seven new Fellows have joined our ranks ; and from my personal knowledge of many of these, I can without hesitation state that in their accession we have gained not merely numbers, but much scientific capacity and professional skill. Our finances during the year have sustained something of a strain in connection with the removal of our Library from Regent Street to Berners Street ; but it is no small satisfaction to me to be able to draw your attention to the fact, as shown by our Treasurer's balance-sheet, that the entire expenditure has been defrayed out of income without at all diminishing our invested capital.

In reviewing briefly the scientific work of the year, I would refer, first, to the large number of specimens which month by month have been exhibited at our meetings. So numerous have they been at times that their consideration has occupied more than the half-hour allotted to them, and the discussion they have elicited has trenched upon the time intended for the chief paper of the evening. I should be unwilling, however, speaking for myself, to discourage these exhibits. I think them often full of instruction and interest—instruction and interest which come vividly home to the minds of many Fellows attending our meetings, who have not in their practice the opportunity of so frequently seeing and handling specimens as happens to those of us connected with hospital work. But while inviting and welcoming these specimens, I might venture to suggest that it would be well that remarks arising out of them should be brief and strictly devoted to their elucidation, and not assume any wide range or controversial character. I would indeed venture to recall some of these specimens to your memory as illustrations of the rare and the interesting.

In March we had Dr. J. Williams' specimen of undoubted fibroma of the ovary, a disease so uncommon that by many pathologists its occurrence has been questioned; and on the same evening we had Dr. Bantock's series of uterine fibroids for which hysterectomy had been performed—an interesting illustration at once of the advance of abdominal surgery and of technical skill. In April Mr. Thornton showed us a soft myo-fibroma weighing nearly 12 lb., which with the uterus and its appendages he had removed —a specimen interesting alike from its great size, from the fact of its having occupied a hernial protrusion of the abdominal wall prior to its removal, and from the extent and boldness of the operative procedure which the case demanded. In May Dr. Carter exhibited a pair of cystic ovaries, the seat of the peculiar degeneration described by Rokitansky, in which the origin of the cysts from Graafian follicles is proved by the presence in them of ova. In June Dr. Graily Hewitt showed a specimen of extreme hypertrophy of the uterus associated with anteflexion; the hypertrophy was indeed so considerable, the uterus filling the pelvis and weighing 20 oz., that some of the Fellows present were disposed to look upon it rather as general fibroid degeneration of the uterus than simple hypertrophic enlargement. In July Dr. Meadows showed a large ovarian tumour which, with a uterine fibroid, he had removed from the same patient, removing at the same time the uterus and the other ovary—a specimen illustrative of the not very uncommon association of fibroid disease of the uterus with cystic disease of the ovary, as well as of the possibilities which our art has developed for the management of so formidable a combination. In November Dr. Meadows showed a fœtus from a case of abdominal gestation, the particulars of which brought vividly before us both the difficulties of the diagnosis and the success of well-conceived operation in the treatment of these singularly interesting cases.

Turning to the larger papers which have been read, I am confident that you will agree with me that they have

been admirably representative of both the science and art of our specialty. Dr. Champneys's two contributions, the one "On the Influence of the Pressure of the Femora in Modifying the Shape of the Pelvis," and the other "On the Obstetrics of the Kyphotic Pelvis;" Dr. Braxton Hicks's, "On the Behaviour of the Uterus in Puerperal Eclampsia," and Dr. Barnes's "On the Obliquity of Naegelé and the Influence of the Lumbo-Sacral Curve," were communications of the highest interest and importance, and have very distinctly enriched obstetric science and thrown lustre on our proceedings for the year. Dr. Barnes's demonstration of the disturbance of equilibrium at the brim by the resistance offered by the promontory at one extremity of the transverse diameter, and the increased driving power of the uterus exerted at the other, cannot but be accepted as at least very powerful arguments in favour of a normal obliquity.

Mr. Lawson Tait's note on uterine myoma was especially interesting in connection with his suggestions as to the initial pathology of the disease; as possibly if its starting-point were better understood its early treatment might leave fewer cases for extirpation of the uterus or removal of the ovaries. To establish the etiology of fibroids would be the solution of a problem of the highest interest, and one by general assent still unsolved. Gusserow, in 'Billroth's Handbuch,' says, "Of the causes of fibroid tumours we know as little as of the causes of most pathological new formations—*i. e.* nothing." Of the possibility of removing with safety fibroid uteri of large size or serious symptoms the success in operation of several of the Fellows of this Society leaves no doubt; but the question between such removal and the less formidable operation of removal of the ovaries, during at all events active menstrual life, is one that has yet to be settled. The evidence, however, is accumulating, and the day cannot be distant when the surgical treatment of large interstitial or subperitoneal fibroids will be placed on a scientific, and so a definite basis.

In Dr. H. Bennett's paper on the anatomy, physiology, and pathology of the os uteri internum, the Society had material before it possessing a double interest, an interest both personal and scientific. It was gratifying to us all to welcome in Dr. Bennett one of the earliest, if not quite the earliest, of the pioneers of the school of practical gynæcology. I recollect reading somewhere that in days not so long gone by the treatment of uterine disease included three remedies and three remedies only: alum injections for leucorrhœa, belladonna plasters for aching backs, and iron as the one reliable medicine equally for amenorrhœa and menorrhagia. To Dr. Bennett's initiative we largely owe the recognition of the fact that leucorrhœa, menorrhagia, and sacral pain are symptoms for the most part of local lesions to be discovered by physical investigation, and that their successful treatment includes the remedying of the local cause by local means. The debate which followed Dr. Bennett's able paper had also much interest, in eliciting that the preponderating view of the Fellows present was in favour of a moderate dilatation of the cervical canal in cases of stenosis, although each appeared to have his favourite plan for attaining the same end.

In Mr. Lawson Tait's paper on pyo-salpinx and its treatment, the Society heard from one of the most enthusiastic advocates of abdominal section the surprising narrative of upwards of sixty operations for cases of tubal distension without one fatal result. In spite, however, of this remarkable success the general feeling among us was, I think, that more light was yet needed on the pathology, and the symptoms and even the diagnosis of this malady, before the Society could pronounce unreservedly that abdominal section, safe as it has proved in Mr. Tait's skilled hands, was the routine treatment for all inflamed and distended tubes.

Of papers based on clinical observation we have also had a varied and important series: Dr. Burchell's "On Turning in Contraction of the Pelvic Brim," Dr. Fancourt

Barnes's "On Labour with Atresia Vaginæ," Dr. Rasch's "Case of Extra-Uterine Gestation," Dr. Herman's exhaustive account of the literature of acute gangrene of the vulva in the adult in connection with the interesting case he detailed, and Dr. Swayne's "Case of Gangrene Occurring in the Seventh Month of Pregnancy," all contained records, suggestions, and information by which the debates and the Transactions of the Society have been greatly enriched.

Leaving these slight references to our numerical strength, our finance, and our work, there are some two or three subjects as to which I may venture as your spokesman to offer our congratulations. We may, I think, firstly congratulate our late President and ourselves on his appointment as Crown Nominee on the General Medical Council. It was long a matter for regret to us as obstetricians that for many years on that Council there was no one specially connected with obstetric teaching or practice. For too short a time the late Dr. McClintock represented us, but now again we have the satisfaction of knowing that our department is represented by an obstetrician of the highest rank. In the second place, it will not be unfitting for us as a Society to offer our congratulations to our distinguished associate, Sir Spencer Wells, on the hereditary honour recently conferred upon him. No words of mine can add to his fame. His monument is perennial. His classical work on the diseases of the ovaries, his unsurpassed skill as an operator, his courageous perseverance when abdominal surgery was by many, if not by most, thought rather to savour of a reckless enthusiasm, constitute but some of his claims not merely to State recognition, on which we congratulate him, but to what I am certain he values not less, the respectful admiration of the profession he adorns. And, thirdly, we have some special cause for self-gratulation in the inauguration of our new Library. Only inferior to having premises entirely of our own is the convenience of having the noble rooms we have lately taken in close proximity to this room, in which we pass so many pleasant

and instructive evenings. It is indeed no small addition to the advantages which are associated with the Fellowship of this Society that we have so large a collection of books, and so spacious and comfortable a room in which to consult them, as we now possess, and it is fitting that we should take this opportunity of expressing to the Library Committee, and in a very special manner to the Honorary Librarian, Dr. Champneys, our sincere thanks for the time, trouble, and care they have bestowed upon this work. In connection with the Library I must not omit to remind the Society that on the evenings of our meetings, instead of closing finally at 6, it is reopened between 7 and 8, that Fellows from a distance coming to the meetings may, if they wish, obtain books at the same time, and so be spared any special journey or trouble.

I must not fail, too, to refer to the increasing popularity of our examinations of midwives. During the past year, as you have heard, no less than sixty-four candidates have presented themselves to our Board, of whom fifty-three succeeded and eleven failed. It has been for long one of the especial objects of our Society to improve the education of midwives, and with the result, I believe, not only of benefiting the poorer classes of the community, but our own profession also. For, as I ventured to intimate in my address in March, I hope much from the emancipation of the younger members of our profession from arduous and ill-requited midwifery attendance among a class quite too poor to remunerate them, and by which their time and comfort are alike invaded, and too often health itself hopelessly lost. The new rules which have been formulated with respect to the constitution of the Examining Board, and which your Council believe will add to its efficiency and success, have received your sanction this evening.

In the address I had the honour to deliver when taking this chair for the first time in March of last year I ventured to mention some four or five subjects which I thought

would be suitable for our consideration. There is yet another which, I hope, may be brought forward before long on which the expressed opinion of the Fellows of this Society would be of widespread interest and value. I allude to the employment of antiseptics in ordinary midwifery practice. It has frequently been incidentally referred to, it was so indeed in the January debate on puerperal temperatures, but it has never been systematically brought forward and discussed. In most of our text-books the adoption of antiseptics in some form is more or less taken for granted, but in scarcely any are definite rules laid down for the guidance of the practitioner. It would not indeed, I think, be unfitting if our Society in its corporate capacity were to issue as its recommendations some system of definite rules connected with this subject, as it did some years ago on the management of infants. At the opening of the Parkes Museum Professor Tyndall, in the weighty address he then delivered, said, "Millions have died that bacilli and bacteria might live." And of these millions puerperal women have, I fear, formed no inconsiderable part. To formulate how best to lessen this mortality, and to prevent the numerous pathological conditions arising from septic infection, too slight, it may be, to produce fatal results, but yet sufficient to induce all sorts of lesions, more or less serious, and often permanently damaging to the pelvic tissues, and, possibly, to the general health, would form an outcome of the Society's work, which would, had the Society done nothing else, more than justify its origin and growth.

Without presuming, now, to enter upon this great subject, which includes the consideration of antiseptic details both before, during, and at the close of labour, there are just one or two not unimportant points which, taking advantage of my occupation of this chair, I should like to refer to as worthy of uniform attention. And the first is the systematic careful examination of the vaginal entrance at the conclusion of a labour. In the course of the year it is one's lot to see many cases of illness following

delivery. In a very large proportion these cases are septic in character, and in many when one asks, "Is the perineum all right?" the answer evinces that the matter has not been thought of as coming within the range of a necessary investigation. On looking, however, at the perineum, with very few exceptions, at or within its margin, or at the vaginal entrance, or on or about the vestibule, we find circumscribed sloughy patches of greater or less extent, evidently corresponding with lacerations, trifling or even considerable, in the mucous surface of the genital tract, lacerations that very possibly are quite unavoidable, and which early attention with antiseptic dressing might have rendered harmless, instead of leaving them to become, as too often is the case, channels of entrance for septic matter. The importance of early surgical attention to a torn perineum adds further emphasis to the desirability of the inspection which I urge. And in addition to this double advantage I would in passing note that I have known several cases where the fact of a perineal tear not having been ascertained at the time of the confinement has led to much unpleasant subsequent correspondence and even legal proceedings. Equally, therefore, from the medical, surgical, and social points of view, the careful examination of the outlet of the genital canal at the termination of every labour is a matter I would press as a duty of uniform importance.

Before passing from this slight reference to the fascinating subject of antisepticism, and the commoner starting-points of septic infection, I would venture just one word more with reference to the use of antiseptic injections. Many years ago, when intra-uterine irrigation was less common than it is now, I communicated to the Society some particulars of a case in which washing out the uterus, in a patient the subject of puerperal fever, was followed on each occasion by a very striking fall in temperature. That experience is now the experience of everyone. But I think it still not so widely known as it should be that perseverance in these irrigations is often attended with the

best results; and that while a single irrigation is useful often in the highest degree, its repeated adoption, so long as necrotic particles continue to be shed from a sloughy vagina or endometritic uterus, serves the double purpose of removing fresh infective products and of advantageously douching an inflamed surface.

Thus much for our work, our success, and our aspirations in the year that is gone. Would that my few remarks might have ended here, but there yet remains a duty which I would gladly escape, the duty of offering you some slight memorial notices of those whom death has claimed from among us.

The first of our Fellows to be taken in the year that has just closed was Mr. Barnard Spaull, F.R.C.S., of Hammersmith. He had been a Fellow of our Society from 1869, and for long was a very frequent attendant at our meetings. Mr. Spaull was a native of Harwich; he received his professional education at the then combined schools of Guy's and St. Thomas's, and had practised at Hammersmith for upwards of forty years. He was highly respected through a wide district not less for his professional skill than for his personal character and the active interest he took in various philanthropic enterprises. He died on January 6th at the ripe age of seventy-nine.

Mr. Thomas Blease, of Altrincham, Cheshire, a Fellow of seventeen years' standing, died at the good age of eighty on March 14th. Mr. Blease, as I gather from the notice of him in the journals, was a successful and highly esteemed practitioner, and his success and the esteem in which he was held were earned not less by his professional acquirements than by his unwearying personal efforts for the benefit of his patients. He continued actively engaged in the practice of his profession almost up to the day of his death, and passed away full of years and of honour.

Mr. Jardine Murray, of Brighton, died on May 28th, at the comparatively early age of forty-nine. He was born in Edinburgh, and received his early education from his father, who was Principal of the Edinburgh Institute.

His professional studies he pursued partly at Guy's and partly at Edinburgh and was particularly proud of having studied under the late Sir J. Simpson and Prof. Miller. At Brighton he was for some years associated in practice with the late Mr. James Oldham, a brother of our former distinguished President Dr. Oldham, and enjoyed for long an extensive and important practice. He saw his patients on the 24th of the month, and died from pneumonia, after a very short illness, on the 28th. He became a Fellow in 1877.

Mr. Robert Harold Ainsworth Schofield, M.B. Oxon., F.R.C.S., died on August 1st of typhus, at the age of thirty-two, at the mission station near Shanghai in China, where he had been working for two years as a medical missionary. His student's career was extremely brilliant. At Owens College, at the University of London, at Oxford, and, finally, at St. Bartholomew's, he gained the highest possible distinctions. After completing his tenure of the Radcliffe Travelling Fellowship, occupying all the more important resident appointments at St. Bartholomew's, and serving with great distinction for the National Aid Society in the Russo-Turkish and Servian wars, he decided to sacrifice all the attractions of home work and the professional success he was certain to gain, for what he deemed the call of a higher duty in connection with medical missions. In 1879 he became a Fellow of our Society. In the following spring he married and shortly afterwards left this country for the East. He was actively engaged in the work of his choice, doing much good equally by his professional ability and the singular charm of his personal character, when he was struck down by fever and taken from the work he loved and from a wide circle of attached and admiring friends.

"Life's race well won,
Life's work well done,
Life's crown well won,
Now comes rest."

Of Mr. Francis Davison, who had been a Fellow for ten years and who practised at Saffi, in Morocco, I regret

to have no information to offer you; all, indeed, I know is that letters addressed to him have been returned to us marked "dead." He was L.R.C.P. and L.R.C.S. of Edinburgh.

In Mr. Philip Harper, who died on Nov. 29th, we lost an original Fellow of the Society, reducing now the number of those who shared in its inauguration to thirty-eight. Mr. Harper was a Fellow of the Royal College of Surgeons, of the Royal Medical and Chirurgical and Zoological and Entomological Societies. In the earlier years of our Society he was a contributor to our 'Transactions,' and took a frequent share in our debates. In the very first volume of our 'Transactions' I find an important paper from him "On the More Frequent Use of the Forceps as a Means of Lessening both Maternal and Fœtal Mortality," and in looking through his paper and the account of the debate which followed, one cannot but be struck with the change which twenty-five years have brought about in the general estimation of the value of the forceps. Every speaker on that occasion, and among them I find the great names of Rigby, Murphy, Tyler Smith, R. Druitt, and Barnes, thought the proportion of cases in which Mr. Harper had used the forceps, one in twenty-six, far too high, and some indeed "quite unwarrantable." Twenty years afterwards, in the debate which took place in this room on the use of the forceps, we find this proportion far exceeded by men of the highest position; Dr. Malins, of Birmingham, for example, declaring that for five years he had used the forceps once in five cases, and with the best results. Dr. Atthill said that during his Mastership of the Rotunda the forceps had been used once in fourteen cases among the in-patients, and to a less extent, but still once in twenty-nine among the extern maternity; and Dr. Daly said that during a practice of fifteen years he had used the forceps in 10 per cent. of his cases, with a mortality of but two out of the total number. And these examples might be largely multiplied. This, of course, is but a fresh illustration of the changing views

which occur in the progress of time with reference to so many questions of practice. I think from it one may fairly learn two lessons: not, on the one hand, to be too dispirited if new views in which we are interested do not at once meet with general acceptance, sustained by the conviction that if based on truth they will certainly win their way; and on the other, when new views not coinciding with our own are advocated by others, not to be too hastily positive that those views must be unsound and unwarrantable. Mr. Philip Harper may, I think, be therefore fairly regarded as one of the pioneers in the movement which placed the forceps in the first position as at once the most important and most trustworthy of our resources in the management of lingering labour.

There now remains for me to say something of those of our Honorary Fellows who during the year have also died.

On Dec. 14th, 1882, and so really in the presidency of my distinguished predecessor, died Dr. Carl Hecker, of Munich. Strangely enough, no notice whatever of his death appeared in any English periodical, and only by chance, as it were, was the fact noticed by our Librarian, Mr. Savage, in the March number of the 'New York Medical Journal.' From an obituary notice by Prof. Amann, published in a Munich paper, I am, however, able to offer you some particulars of Dr. Hecker's life and work. Carl von Hecker was born in Berlin in 1827, where his father was a professor of medicine. After passing through a distinguished university career, and having served in the army as assistant-surgeon, he published in 1853 a work on Retroversion of the Gravid Uterus, and commenced practice in Berlin. In 1858 he was elected in the University of Marburg Professor of Obstetrics and Director of the Lying-in Hospital; but within a very few weeks he was appointed to the much more important Professorship of Obstetrics in the University of Munich. Here he soon gained a great reputation both as physician and lecturer.

His first large book, 'Clinical Observations in Obstetrics,' he published in 1861, in conjunction with Prof. von Buhl, who died three years before him. Besides this, he wrote many valuable essays in professional papers, and so recently as 1881 another large work, entitled 'Observations and Inquiries at the Lying-in Hospital at Munich from 1859 to 1879.' This contains the result of observation of more than 17,000 births. Besides obstetrics Dr. Hecker took much interest in medical jurisprudence, and edited, after Buchner's death, his work on Forensic Medicine. He married a daughter of the celebrated jurist and Privy Councillor von Bluntschli, and his domestic relations appear to have been as happy as his reputation was great, and his distinctions numerous. For some three years previous to his death his health had not been good, but up to the day on which he died he had continued to perform all the duties of his appointments. Between five and six in the evening of the 14th he gave his customary lecture to his class and returned to his family cheerful and lively as usual, "satisfied with himself," says his biographer, "as someone who had well done his day's work." Shortly after seven he died suddenly, seated in his arm-chair. Professor Amann concludes his notice of Hecker thus: "Through his excellent work in the field of science, through his useful activity in the different practical branches of his profession during a period of twenty-four years, he gained the high esteem of all scholars, while his affability and social disposition gained him many friends. Thus he lived an active, although too short a life, and he will long survive in the remembrance of the representatives of science, of the university, of his colleagues, and of his friends. His own words," adds Amann, "which he used in his inaugural address as rector magnificus may give us some consolation for his early death—

"'Lange leben ist nicht viel leben,
Viel wirken ist viel leben.'"

I had written the above when I received from Dr. Mat-

thews Duncan—in response to a suggestion of mine that as von Hecker had died during his presidency it would be a gratification to the Society to receive from him some obituary notice—the following interesting paper :

"I have repeatedly been told that Hecker was a man of sufficient private fortune, who, therefore, was able to and did pursue the study of obstetrics and gynæcology from love and respect for these sciences, and untrammeled by considerations which are a strong impulse to most of us to perseverance in work, but which do not do so much to ensure goodness of work as simple love of knowledge does. Hecker's great life occupation was teaching and practising midwifery ; and constant hospital attendance was his daily food. His honorary position in this Society, held since 1864, shows how highly he was esteemed abroad ; and I know he was held in like honour in his own country. One of our best means of judging a man's value in Germany is his selection to fill high and responsible positions—a professorship in a great university or the charge of a great hospital ; and, when speaking with Germans of contests going on for such posts, and especially of the various candidates, I have said, 'Hecker !' and have got for answer, 'Of course he is our first man ; but he will not leave his fine position at Munich, with his beautiful villa and property in the vicinity.' So in Munich he lived, worked, and died. Like other great teachers, he had a large following of admiring pupils, among whom we may name Poppel, whose work on the force of labour will keep his name living in obstetrical history. The power of producing followers and exciting them to good work is a valuable product of teaching. In no one was it more clearly observed than in the great Paul Dubois ; and in a less degree it was exemplified in Hecker. His work was all of the best kind, whether it owned his sole parentage or was a joint production with a pupil. Facts and careful observation abound ; theory and hypothesis, kept within due limits, luxuriant yet not rank. We know

only two volumes by him. One was published in 1861, 'Klinik der Geburtskunde,' by Hecker in conjunction with Buhl, the Professor of Pathological Anatomy; the other, under the same title, by Hecker alone in 1881. Both were records of observations and researches made in the Lying-in Hospital of Munich. Besides these volumes, he produced many minor works; and one cannot forget his ingenious paper on the dolichocephalous head as a cause of face presentation, a paper whose results still stand fast, though modified by great additions of other authors, especially by the recent researches of Winckel on the influence of slight contraction of the pelvis in producing this interesting presentation."

On Sept. 27th died Jean Henri Depaul. He was born on July 26th, 1811, and had therefore attained the age of seventy-two. Left an orphan at an early age Depaul was intended by his guardian for business, and was sent with that intent to Paris. But his natural tastes inclined him to the science of medicine, and after at first spending all his free evenings attending the lectures of the Ecole Pratique, he ultimately entered upon the usual hospital course, and in 1832 dressed under Prof. Paul Dubois; with Prof. Dubois, Depaul soon became on extremely intimate terms, and continued to devote himself mainly to surgery in association with Dubois for many years. His first hospital appointment was at the Hôpital des Enfants Assistés, where he remained until his election as Professor of Obstetric Medicine in 1862. M. de Soyre, who writes of him in the 'Archives de Tocologie,' of which Depaul was editor in chief, gives the following further particulars of his life and character: "M. Depaul," says M. de Soyre, "was a man of prodigious activity, which he showed from the commencement of his career by the numerous works which he published, the thorough preparation he made for the various meetings he had to attend, and by making a practice which rapidly became considerable. He performed operations admirably and made an excellent diagnosis. M. Depaul was in general little given

to new methods. He only accepted them a long time after their appearance and when they had stood the test of time. It was with respect to the method of preventing the spread of puerperal fever in the 'service hospitaliers' that a cloud arose for a time between Depaul and his master, P. Dubois. The latter, in advance of his day, wished to isolate the patients, attributing the frightful mortality which then attacked lying-in women to the crowded state of the Clinique and the Maternité. M. Depaul was not of this opinion, and it was only later, when he presided over the erection of the new Clinique d'Accouchements, that he observed the new ideas. But only very reluctantly did he ever use antiseptics, and never adopted intra-uterine injections. He never used any forceps but the 'forceps classique.' He was a strong partisan of the induction of premature labour in cases of pelvic deformity, and when this was not available, cephalotripsy was his favourite operation. Without being an orator, he was a fluent speaker. As a clinical teacher he was particularly attentive to his duties. His reputation was universal. Not only did he constantly receive at the Clinique medical men from all lands, but since the foundation of the 'Journal d'Accouchements,' with which his name was associated, he was in close correspondence with most professors of midwifery in Europe." A warm tribute to his personal character closes this sketch of the life and work of Professor Depaul.

Dr. J. Marion Sims was born in South Carolina in January, 1813. He graduated at Jefferson College, Philadelphia in 1835, and in the following year commenced practice in the town of Montgomery in Alabama. He must have early given special attention to gynæcological practice, for in 1845 he established a small hospital with twelve beds for negro women, in which, after what he speaks of as four years of incessant experiment, he worked out the problem of the curability of vesico-vaginal fistula. In 1853 he took up his residence in New York, where he founded the Woman's Hospital; and although for some

years, both before and during the Civil War in America, he practised in London and Paris, and for shorter periods at other times, New York was the chief seat of his practice and teaching for the last thirty years of his life. It can, perhaps, scarcely be said that Sims was a man of quite the highest rank in gynæcology; but we are unquestionably indebted to him for two most notable additions to our resources, the use of silver-wire sutures in vaginal and perineal surgery, and the adoption of the principle of perineal retraction in the examination of the uterus by means of the duckbill speculum named after him; and of these two very considerable achievements I am not sure that the latter is not the more important, as by the use of the duckbill speculum not only has the general examination of the uterus been singularly facilitated, but the opportunity of surgical operations on the uterus and vagina, including much more than the treatment of vesico-vaginal fistula, has been greatly enlarged. Over and beyond being the first operator to employ silver sutures in the treatment of vesico-vaginal fistula, there can, I think, be no question that while not originating anything with respect to the operation which was not known before (for even in the matter of metallic sutures he had been anticipated by Gosset of London, who in 1834 used leaden ones), Sims was yet undoubtedly the first who by combining what Dr. Thomas calls the two essentials of success, the use of a speculum by which the vagina could be distended and explored, and a suture not liable to excite inflammation or ulceration, placed the operation on a footing which has rescued vesico-vaginal fistula from being what it previously was, the *opprobrium chirurgiæ*. Of his splendid personal skill in the treatment of vesico-vaginal fistula, the result of persevering work, great natural ingenuity, and large opportunities well used, one can speak without hesitation and in the highest possible terms. Of the pamphlet war connected with his surgeoncy to the Woman's Hospital, which ended in his quitting for a time the field of his greatest surgical

triumphs, and of the storm of adverse criticism which fell on him in connexion with the publication of his views as to the treatment of sterility in his work on uterine surgery, I need here say nothing. We may be glad, at all events, that those views gained no footing among English gynæcologists, and that it is the deliberate opinion of the profession that when we have done our best to put the generative organs of our patients into a healthy state, we have done all that is required of us towards the establishment or restoration of their functions. But putting aside any discussion of what we may deem to be errors of judgment, and not forgetting that to such all are liable, *humanum est errare*, we shall yet, I think, agree that Marion Sims will ever occupy a niche of honour in the temple of professional fame as a surgeon of highly inventive genius, practical skill, great resource, and the introducer to general use of the speculum, which has only been second in its influence to Simpson's sound in revolutionising the practice of gynæcology.

With these poor tributes to the memories of those we have lost my present duty ends, but I cannot close this imperfect address without offering my best thanks to the Society for the considerate way in which it has borne with my shortcomings during the year that is past, and to my colleagues in office for their ever ready and efficient assistance. May the year on which we enter to-night surpass the one whose annals have just been occupying us in every element of prosperity!

Dr. Barnes rose to move a cordial vote of thanks to the President for the able address to which they had all listened with rapt attention. The summary of the work of the year was a masterly analysis. His history of the onward progress of the Society in prosperity was nothing new. To that we had become accustomed; and he was satisfied that we had not reached the climax of success. He rejoiced to find that one great object contemplated by

the chief founder of the Society, Dr. Tyler Smith, the assertion of the principle that obstetrics included gynæcology in the broadest sense, had been carried on. The Society had most successfully proved that obstetric physicians were surgeons as well, and that the right to operate was naturally associated with the study of the physiology and pathology of the generative organs. It was impossible not to see that the great strides made in this department by our American brethren was largely due to their freedom from the trammels which the physicians and surgeons had so long imposed upon obstetrics in London. This movement would certainly gather strength and add to the prestige of the Society. Dr. Barnes then proposed, Dr. Daly seconded, and it was carried by acclamation, "That the best thanks of the meeting be given to the President, Dr. Henry Gervis, for his excellent address, and that he be requested to allow it to be printed in the next volume of the 'Transactions.'"

Dr. Matthews Duncan then moved and Dr. Godson seconded, "That the Society desires its most cordial thanks to its retiring officers, viz. the Hon. Secretary, Dr. Alfred Lewis Galabin, and the Hon. Librarian, Dr. Francis Henry Champneys, for their zealous and valuable services to the Society during their respective terms of office." This was carried unanimously.

A vote of thanks, which was carried unanimously, was then moved by Dr. John Williams and seconded by Dr. Champneys, to the retiring Vice-Presidents and Members of Council.

MARCH 5TH, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—52 Fellows and 4 visitors.

Books were presented by Dr. Ahlfeld, Drs. Robert and Fancourt Barnes, Dr. H. Fritsch, Dr. Godson, the St. Thomas's Hospital Staff, and the American Medical Association.

Dr. Tuchmann presented to the museum Braun's hook and forceps as used at the Vienna Clinic.

Robert Boxall, M.D., Robert P. Fouracre, M.R.C.S., James Crawford, L.K.Q.C.P., J. Alfred Masters, L.R.C.P. Lond., and Bertram H. L. Stevens, were admitted Fellows of the Society. Charles Ernest Pronger, L.R.C.P. (Barnstaple) was declared admitted.

The following gentlemen were elected Fellows of the Society :—John Davies, M.R.C.S., John J. Eyre, L.K.Q.C.P. (Forest Hill), Francis Henry Hawkins, M.B., James Jackson, M.R.C.S., William Cooper Keates, L.R.C.P. (Dulwich), Arthur Oakes, M.D., Robert J. W. Oswald, L.R.C.P., and A. Marmaduke Sheild, M.B. Cantab.

WOODEN RING PESSARY WORN FOR SIX YEARS WITH THE LUMEN ENTIRELY FILLED UP BY DEPOSIT.

By Dr. Horrocks.

This pessary was removed from a woman over seventy years of age. She had it inserted six years previously, and came complaining of a sanguineous discharge and pain. The pessary was removed with considerable difficulty by means of the fingers and forceps, and without an anæsthetic. It was in a very foul condition, and its margins rough in places by deposit. The lumen was entirely filled up by a deposit easily breaking up into strata, which had a white section on fracture. The pessary itself was quite black, and shone like plumbago; it made a mark on paper like lead pencil. At first it was rather heavy, but since it has been dried it is light. My colleague, Dr. Stevenson, has kindly tested some of the deposit and finds it largely composed of lead. She has been using a lotion for years (probably lead lotion). On scraping the outside, the lead deposit on the wood is found to be a mere film, and the wood beneath is cut easily with a penknife.

The patient has been wearing a watch-spring india-rubber ring pessary since, but says it is not so comfortable as her old one.

The President had seen a similar case to Dr. Horrocks's, in which a still larger metallic pessary had been impacted in the vagina for many years, and the discharge had become so offensive that the patient was sent into the hospital by a medical man under the impression that she was the subject of cancer.

FIBRO-CYSTIC MYOMA OF THE UTERUS.

Mr. Knowsley Thornton showed a fibro-cystic myoma of the uterus, with both ovaries attached, which he had

removed from a single woman, æt. 40, at the Samaritan Hospital on February 16th. The patient came from the Cape, where the tumour was diagnosed as ovarian. The exact diagnosis was difficult, but Mr. Thornton believed it to be fibro-cyst of uterus. There was a large multilocular mass of cysts springing from top of uterus, and the whole body was soft and œdematous, and full of small cysts; a cystic mass burrowed into right broad ligament. The uterus was removed all but a small portion of the cervix, vessels being tied as they were cut. The small portion of cervix had sloughed out since, so that the operation was practically a complete extirpation of uterus (modified Freund). Mr. Doran had kindly examined the specimen, and found it to be œdematous myoma, not sarcoma, as Mr. Thornton had feared from the general condition and appearance of the patient, who had, however, made an uninterrupted recovery.

UTERINE FIBROIDS, WITH MULTILOCULAR OVARIAN CYSTS AND BROAD-LIGAMENT CYST.

Mr. Knowsley Thornton also showed a large fibroid uterus with separated subperitoneal fibroids, small multiple cysts of left ovary, and large multilocular tumour of right ovary with broad-ligament cyst attached. The patient, a single lady, æt. 40, was first seen in consultation with Mr. Drake, of Brixton Hill, two years back. She then had the multiple fibroids blocking up the pelvis and extending into the abdomen, but there were no symptoms justifying interference. Mr. Drake again brought her to Mr. Thornton lately with a multilocular ovarian tumour developed above the fibroids, and considerable loss of flesh and general health. Operation was now necessary, and was performed on February 20th. The right ovarian tumour was removed, and with it an old broad-ligament cyst, which had been tapped by Mr. Drake nine years before and had not refilled. The left ovary was found to be an

exact miniature of the tumour on the right side, but it was so embedded in the fibroids that its removal was impossible; it was therefore decided to perform complete hysterectomy. This was done, the whole broad ligament and cervix being included in Kœberlé's serre-nœud. Nodules of a suspicious character were noticed in various parts of the peritoneum, and one of the size of a walnut was partially enucleated from the wall of the bladder. The patient appeared to be doing well, but became worse and sank rather rapidly on the morning of the fourth day, presumably from peritonitis. The chief interest of the case lay in the quiescent broad-ligament cyst. Mr. Thornton suggested that its presence, and the irritation it kept up, had very likely led to the ovarian disease; if so it was an argument in favour of extirpation of broad-ligament cysts.

The PRESIDENT considered Mr. Thornton's suggestion as to the possible etiological relation between the tapped broad-ligament cyst and the later uterine disease of much interest, as, if this were proved, it would modify the opinions generally held as to the harmlessness of these cysts after treatment by simple tapping.

Mr. DORAN observed that uterine cysts were, according to Coblenz, frequently developed from remnants of the duct of Gaertner, which was the efferent canal of the Wolffian body represented in the adult by the parovarium. If broad-ligament cysts were developed from the vertical tubes of the parovarium they generally contained papillary growths, and cysts in the hilum of the ovary, also developed from Wolffian relics, contained similar growths. Papillary broad-ligament cysts often infected the hilum, and the reverse appeared to be even more frequent. Operations on advanced cases of this kind are always difficult and dangerous, and as the simplest and thinnest-walled broad-ligament cyst sometimes had papillomatous contents, such cysts should not be tapped, but removed as soon as possible.

CYST REMOVED FROM THE VULVA.

DR. GALABIN showed for Mr. W. E. Fielden, of the Chichester Infirmary, a cyst removed from the vulva, which

was believed to be a hydrocele originating in a pouch of peritoneum. The patient from whom it was taken was fourteen years old. The cyst was egg-shaped, two inches and a half long, and translucent; it had existed three years, and had been tapped once, a clear straw-coloured fluid being drawn off. It occupied the left labium majus, reaching backward to within one inch and a half of posterior commissure, and forwards obliquely towards inguinal ring to about level of clitoris. The skin was loose over it, and when this was divided on a director the cyst was found to be free except at the anterior end towards inguinal ring, where there was a firm cord which had to be divided by scalpel. The wound healed in four days.

DERMOID CYST OF THE OVARY.

Dr. Heywood Smith exhibited a dermoid cyst of the right ovary that he had removed on January 11th. The inside presented the appearance of cuticle, and had several teeth—a molar, two incisors, and a canine—growing from plates and masses of bone. It contained a fluid thick with cholesterine, and masses of hair, some loose, the colour of the patient's, red, and some locks growing from the inside of a dark colour. He submitted to the Society the proposition as to whether the presence of the dark hair could be traced to the fact of the patient having been twice pregnant, the husband's hair being black; whether the hair in a dermoid cyst in an unmarried woman would be of her coloured hair, and after impregnation the characteristics of the husband would be engrafted in the cyst. If this was established it would tend to prove that dermoid cysts were developed from Graafian vesicles, and were not invariably congenital infoldings of external blastoderm. The patient recovered well after slight threatening of septicæmia, wherein kairin was useful.

FIBRO-CYSTIC DISEASE OF UTERUS: HYSTERECTOMY.

Dr. Heywood Smith also exhibited a large (10 lb.) loose fibroid of the uterus with small cysts, which he had removed, together with the upper third of the uterus, from a woman aged thirty-nine. The uterine cavity measured only two inches and three quarters, the broad ligaments were folded back and formed a thickened band at the back of the uterus, the ovaries were deep down in Douglas's pouch and were diseased. A double silk ligature was passed through this thick band close behind the uterus, the posterior half tying it and the anterior half embracing the uterus; a strong silk ligature was tied tightly round the whole stump; a serre-nœud was used to temporarily constrict the uterus. The tumour was cut away, two flaps were made in the stump, and the peritoneal surfaces brought together with an uninterrupted silk suture and the stump dropped in. The wound was closed with thirteen silkworm sutures deep, and seven superficial. The patient died on the second day, the stump being in a sloughy condition.

ADHERENT PLACENTA.

Dr. Robert Boxall exhibited a morbidly adherent placenta from a woman the subject of recent syphilis. It was attached to the posterior wall of uterus and was toughly adherent over the greater part of its surface, the binding medium being found in a membranous-like layer on the uterine surface which, where the adhesion was most marked, required to be broken through piecemeal with the finger, as if the placenta had been stitched with thread to the uterine wall. Apart from this, its shape is peculiar. It is divisible into a larger mass, the placenta proper, and a smaller, thinner portion occupying at least a third of the whole expanse, and connected with the larger by an

isthmus of placental tissue one to one and a half inches broad. In addition to this, at the margin of the smaller portion are two separate islets, each about the size of a shilling. The vessels, arteries, and veins run from the larger mass across the intervening chorion to reach the smaller portion, and also to put the islets in communication with the larger vessels.

CYST OF PLACENTA.

Dr. Boxall also exhibited a placenta containing a large blood-cyst almost as large as an orange. The greater part of the fœtal surface is occupied by old blood-clot.

The President said the thin, semi-detached portion of placenta in the first of Dr. Boxall's specimens resembled pretty closely a placenta velamentosa.

OVARIAN TUMOUR WITH TWISTED PEDICLE.

Dr. Barnes exhibited an ovarian tumour. The subject was waiting for operation, the day for which had been fixed, when she was suddenly seized with severe pains in the abdomen, vomiting, and depression of pulse. Rupture or twisting of the cyst being diagnosed the operation was done the same night. The tumour had doubled in size in the course of a few hours; it had twisted on its pedicle. Smart peritonitis had begun, and it continued, so that the stitches gave way as the wound gaped. Her condition was precarious, but fourteen days after operation she had rallied. The case emphasised the rule to remove an ovarian tumour as soon as it was clearly diagnosed. Every woman carrying an ovarian tumour might be likened to a person carrying dynamite: it was liable at any time to explode by rupture, twisting, inflammation, or other accident.

ON THE CORRODING ULCER OF THE OS UTERI.

By John Williams, M.D., F.R.C.P.,
OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

The corroding ulcer of the os uteri described by Dr. John and his brother Sir Charles Clarke, has received but little attention at the hands of physicians everywhere, and this appears to be due to its rarity. In some of the text-books on the diseases of women the disease is not even mentioned, in others the existence of such a disease is denied; in others, again, it is stated that Clarke described such an affection, while some few only give a brief account of it. Among the last are Ashwell, Churchill, Emmet, and Scanzoni. Scanzoni says:—"We do not know it, except from the descriptions of English authors, particularly those of Clarke and Lever, who have introduced it into practice under the name of the corroding ulcer of the os uteri. The rarity of these ulcers is such that the physicians of the Continent who have the most experience in pathological anatomy and in gynæcology have not recorded a single case. Furthermore it is not altogether improbable that the English authors have made a mistake as to the exploration of the anatomical characters, inasmuch as they have doubted the presence of a cancerous deposit in the interior of the parenchyma of the uterus."

There can be little doubt, I think, that cases of rapidly ulcerating cancer, or what appear to me to be such, have been described as cases of the corroding ulcer, and it is not improbable that Ashwell, Churchill, and Emmet have fallen into this error, but the description of the disease given by Sir Charles Clarke differs from the descriptions of all others, and from all descriptions of cancer of the cervix uteri, and it is evident on the face of it that he

describes what he has seen and carefully observed during life and verified after death. The three following cases, which I have had the opportunity of observing for periods varying from two to ten years, fully bear out the accuracy of Sir Charles Clarke's observations and the correctness of his description.

Case 1. *A small ulcer around the os uteri, extending in the course of years over the greater part of the vagina; extension taking place by lupus-like tubercles ulcerating; general health remaining good for ten years.*—R. C— came to University College Hospital in 1874, complaining of pain and swelling in the lower part of the abdomen, a tearing pain with discharge of yellow matter, occasional vomiting, and constipation.

She was well nourished. The vagina was narrow, had undergone senile atrophy. The uterus was high up, small, atrophied, freely moveable. The cervix was puckered, and around the os, on its margins, was a small ulcer which bled slightly but readily on examination.

I saw her several times during the years 1874—77, and she gained in health and became considerably stouter.

In August, 1882, she came to me again, and the following history was taken by Dr. Robert Boxall:

"The patient is sixty-one years of age, was married at thirty years of age for twenty-five years, was then a widow for four years; married again three years ago, her husband died in six months; she now contemplates marriage a third time. She had one child forty-one years ago at the age of twenty; the labour was easy, but she flooded two hours after it; she made a good recovery. She has not been pregnant since.

"The catamenia first appeared at the age of fourteen, returned in three months, and again in six months; after that they returned at irregular intervals until she was seventeen, when she became moderately regular, but occasionally missed a period. The flow lasted two days and was moderate in quantity. There was slight pain with

palpitation for some hours before the flow, ceased on its appearance, and she felt very well while the discharge lasted. The bowels, usually constipated, were freely open during menstruation. The courses stopped at the age of forty-two.

"A slight flow appeared seven years ago, and again at irregular intervals during the last twelve months, sometimes lasting three weeks. For three or four years she has had occasionally a very offensive discharge; it is sometimes white, sometimes dark brown; it comes with a gush, especially when she has got downstairs or on attempting to micturate. This has become worse during the last three months. The bowels have for years been constipated, the stools seem smaller than they used to be, and she has a continuous pain in the rectum.

"The urine is small in amount, it is passed frequently, especially at night; micturition is not painful, but it is accompanied by a curious darting sensation as if the urine flowed over a raw surface. She has no cough or dyspnœa.

"Three or four years ago she was losing flesh, but latterly she has been getting stouter in the face, and the girth of the stomach has increased quite two inches during the last two months. She has always suffered from indigestion, and the appetite is variable.

"She is very nervous and occasionally hysterical (globus). Eyesight defective; things often look green or yellow.

"She is subject, like other members of her family, to rheumatic pains. She had neuralgia in the face when young and at the climacteric. There is no history of syphilis, blows, falls, or strains, but fourteen years ago she had a great fright which brought on a 'period' immediately. She has had no serious illness, except 'inflammation of the liver' with much sickness forty years ago.

"Father died, aged eighty, of bronchitis; mother died, aged eighty-two, of bronchitis. Has had six sisters and eight brothers. One sister died young, cause unknown. Five sisters living, one has fistula, two suffer from rheu-

matic gout, the remaining two are healthy, but one looks delicate and her children are consumptive. One brother is dead of consumption, one rheumatic, one was always weak and pigeon-breasted, and one has had his leg amputated for white swelling. Maternal grandmother died insane, mother at times lightheaded. All sisters hysterical, neuralgic, and rheumatic; all irregular before marriage like patient. All the family subject to skin rashes, itching for weeks, especially in the summer. Father's sister died of cancer, between fifty and sixty; another died with tumour of the breast about the same age."

The patient is very well nourished, there is a thick layer of fat in the abdominal wall. There is no tenderness on palpation of the abdomen, and no swelling of any kind to be felt in it.

The vagina is smooth, atrophied, very narrow, measures about an inch and a half only in length. It terminates above in a hole, which just admits the tip of the index finger. The edges of this cavity are rigid and resistant. On the posterior wall of the vagina, close to the edge of this opening, is a spot about the size of a sixpence; its centre is smooth, its edges are raised, and give a feeling as if they were formed of small tubercles. The ring of tissue forming the edge of the cavity at the top of the vagina also feels tubercular. No distinct ulcer can be felt by the finger. The uterus cannot be felt at all. The cervix has entirely disappeared.

On examination with the speculum the spot on the posterior wall is seen to consist of a small white central cicatrix surrounded by a raised reddish-brown border (Plate II, fig. 1). The posterior wall of the cavity at the top of the vagina is seen to be white and apparently cicatricial for about two thirds of an inch; above that point red, granular, or tubercular. The sound passes for two inches and a half into a cavity considerably more capacious than that of the uterus; the instrument can be turned round in all directions in it. Its surface feels rough and bleeds readily but not profusely. Through the rectum the uterus cannot be made out any

more than through the vagina, but a mass is felt in the situation the uterus should occupy, which cannot be accurately defined between the two hands. It is fixed but not tender. On the right side, running from the top of the vagina to the pelvic wall, is a hard, thick, resisting cord, which may be thickened sacro-uterine ligament.

August 28th, 1883.—Two months ago she was attacked with violent pain in the lower part of the abdomen, and after four days a free discharge of matter and blood came away. This lasted for two or three days; the pain then ceased. The bowels were not moved for eight days. She has had a similar attack since. The urine was scanty and high coloured.

She is thinner. No distinct swelling of any part can be felt above the brim of the pelvis. The orifice of the vagina is very narrow, and a good deal of dirty thin discharge escapes from it. Some tubercles can be felt on the posterior wall of the vagina near the edge of the cavity, occupying the position of the cervix uteri and top of the vagina. The lips of this cavity are thin, and admit the tip of the finger. The cavity bleeds readily but not profusely on examination. The tissues above appear bound down in the pelvis, although there is no thickening around. The speculum shows a shallow superficial ulcer with a pinkish base on the posterior wall of the vagina where the rough tubercular spot is felt by the finger. The cavity above is of a deep dark red colour, and on its surface no white or cicatricial tissue can be seen anywhere. No stricture can be felt in the rectum, and the mucous membrane of the bowel appears healthy as far as the finger can reach.

September 25th.—Has had one attack of pain since last note. There is now a free discharge from the vagina, occasionally containing a little blood. She is losing flesh, feels weak, and perspires much.

Case 2. *Corroding ulcer of cervix affecting, when first seen, a small part of the anterior lip, then extending symmetrically over the whole of the upper part of vaginal tube; death from*

paralysis nine years after first symptoms of ulcer were observed.—Mrs. W—, æt. 65, had one child at the age of twenty-five and one miscarriage subsequently. At the age of fifty-seven, several years after she had ceased to menstruate, she noticed a discharge from the vagina stained with blood. It was not much, and lasted but a short time. She was then a very active woman, fairly nourished but not stout. She suffered slight discomfort in the pelvis with slight mucous or muco-purulent discharge from the vagina for the four years following—until 1877—when the pain became more severe and the discharge more profuse. At this time she again lost a small quantity of blood from the vagina, and on examination a small ulcer, about the size of half a sixpence, was found on the anterior lip of the uterus. This bled readily but not profusely when touched; its base and edges were not hard. The vagina was atrophied, its walls smooth; the uterus was small, freely moveable, and had undergone senile atrophy. From this time until March, 1882, she had several attacks of pain accompanied with gushes of discharge of a purulent character streaked with blood. The amount of the discharge varied greatly; sometimes it was almost absent, then again present continuously for weeks in greater or less amount, then again large gushes streaked with blood would come, accompanied by severe pain. At these times the discharge was somewhat offensive, but as a rule it had but a slight unpleasant odour. After an attack of the kind in 1880 I made an examination and found the vagina very short, the cervix altogether absent, and the tip of the finger passed into a small cavity with thin, firm, resisting edges,—the edges of the contracted and ulcerated vagina. The speculum was not used nor the sound. No examination was made after this time.

She continued to lead an active life until the middle of the winter 1881-2. During that winter the discharge increased in quantity and the pain in severity, and in March she took to her room. From that time until she died in the summer she was rarely free from pain. She

took food well, and continued well nourished, although she lost some weight. Constipation was a marked symptom throughout, and for some weeks before death there was great irritability of the bladder and incontinence. She died of hemiplegia. There was no autopsy.

Case 3. *Corroding ulcer first observed when the vaginal portion and upper part of vagina were involved; dilated right kidney, pyelitis on left side; death from uræmia.*—I saw this case first on the 30th June, 1883, in company with Dr. Glover. She then complained of pain in the pelvis and in the region of the right kidney, and of an offensive purulent discharge from the vagina, sometimes stained with blood; there was slight tenderness over the abdomen generally. She was very thin, vomited frequently, and wandered in her mind.

An elastic fluctuating tumour was found in the right iliac region, which was recognised as a dilated kidney. The vagina was narrow owing to senile involution; the uterus was moveable; the cervix did not project into the vagina; upon it was a smooth ulcer which spread on to the walls of the vagina around, and was about the size of a florin; it bled slightly on examination; its base and edges were not hard.

She was admitted into University College Hospital on 14th July. She suffered then from uræmic poisoning. After she recovered from this the following history was obtained from her and her friends:

She had complained of pain in the right lumbar region for about twelve years. She had been losing flesh for about twelve weeks; this was soon followed by loss of appetite and sickness, which continued till her admission. For about the same time she had noticed a swelling in the right lumbar region, with a severe pain of a stabbing character on movement. She had no trouble with her urine before admission. The bowels were regular; sleep bad; no headache or giddiness; no noises in the head; sight

good; no cough, but she had suffered much from palpitation during her illness.

She began to menstruate in her eleventh year; the catamenia returned at intervals of four weeks, were moderate in quantity, lasting five or six days, were accompanied always by pain in the back and stomach, which were so severe as to lay her up for two or three days. Menstruation ceased at the age of fifty, four years ago.

She was married at eighteen, had three children, the last twenty-two years before; no abortions. The first labour lasted two days and a half, completed by forceps, child stillborn, shivered after it, had fever and kept her bed for three months. The second was easy; she shivered after it and kept her bed for a month. The third was easy and she made a fair recovery after it.

For about nine months she has had a bad-smelling, dirty white discharge, and for six months she has had irregular hæmorrhages, each lasting about two days.

Her father died at fifty, said to be of cancer of the bowel. Her mother died at sixty, suddenly, of hemiplegia.

The patient has not suffered from any skin disease, gout, or rheumatism. She is of medium height, dark complexion, very thin; takes a fair amount of liquid food, but is often sick; urine and fæces pass involuntarily. Pulse 132 a minute, small, weak, but regular. Skin dry, scurfy, extremities cold. Heart and lungs healthy. Abdomen not distended, gurgling on palpation below umbilicus, some tenderness over abdomen, but most marked in epigastrium, the right side of umbilicus, and above pubes. Spleen cannot be felt.

There is a tumour in the right lumbar region, reaching from a finger's breath below the costal cartilages to the umbilicus and down to the level of the anterior superior iliac spine. It is moveable, and can be pushed up until a great part of it is under the ribs. It is smooth, elastic, resonant in front, but dull behind and in the flank. Fluctuation is felt distinctly through it from front to back. The colon can be felt at the upper border and in front of

the tumour. An aspirating needle was introduced into it at a point an inch above the middle of the iliac crest, the tumour being at the same time pushed against the flank; twenty-six ounces of clear urine-like fluid were withdrawn. This fluid was faintly acid, did not deposit on standing, contained about one tenth albumen, 1 per cent. urea (same percentage as urine from the bladder), abundance of tyrosine crystals, but no sugar.

On July 20th two drachms of puro-sanguinolent fluid were drawn by catheter from the bladder; it consisted chiefly of blood and pus, with a few crystals of triple phosphate. On the following day seventeen ounces of clear urine were drawn from the bladder, containing neither blood nor pus.

She continued uræmic, wandering, restless, with a dry tongue, subnormal temperature (about 96·5° F. to 97° F.), with cold and slightly livid extremities, with occasional slight twitching of extremities until the end of July. About this time she became rational and began to sleep well. On the 5th August she was much improved, but the tumour in the flank was refilling; it felt like a bag half filled with fluid.

The posterior wall of the vagina was now no more than one inch and three quarters in length; the edges of the ulcer had contracted, converting it into a cavity about three quarters of an inch in depth at the top of the vagina. This cavity admitted the tip of the finger; its edges were sharp and resisting, but not thickened. Its surface was irregular and bled slightly on examination. The body of the uterus could not be made out. There were occasional gushes of offensive discharge containing a considerable amount of blood (Plate I).

On August 22nd the urine contained 7 per cent. urea.

September 12th.—The vagina for about three quarters of an inch around the edge of the ulcer was of a brownish red colour. The edge of the ulcer was sharp and slightly tubercular, but there was no thickening of the vaginal wall; th etubercles on the edge of the ulcer were of a dark red colour; the ulcer was smaller or more contracted, and

scarcely admitted the tip of the finger. Discharge muco-purulent.

22nd.—Cyst aspirated, and twenty-five ounces of clear sweet urine drawn off.

25th.—Vagina much as before. The edge of the ulcer was surrounded by a ring of dark brown small tubercles. The surface of the cavity was generally red and granular, but on the left side near the edge it presented a whitish appearance—apparently cicatricial—across which ran two little narrow bands which had a whiter appearance than the rest of the tissue. The ulcer bled very little when examined by the finger and when cleaned by a mass of cotton wool. The patient had improved so much in her general health that she was now discharged.

She was readmitted on November 29th. She appeared generally in much the same state as she was when discharged, but she suffered more pain in the abdomen, headache, and frequency of micturition. The posterior wall of the vagina was now an inch and a half in length, the anterior three quarters of an inch; the cavity of the ulcer admitted the tip of the forefinger for half an inch; its edges presented small tubercles, in part of the same colour as the rest of the mucous membrane of the vagina, in part of a red colour. These tubercles may have been simply the result of a slight unevenness of the edge of the ulcer arising from a slight irregularity in the progress of the destructive process. The left and posterior wall of the ulcer was of a whitish appearance—which may have been due to cicatrisation or to the exposure of fat—in the greatest part of its visible area. The remainder was of a dark red colour.

The tumour had filled again and was tapped on November 29th, twenty-six ounces of clear amber-coloured fluid being withdrawn. It had a slightly urinous odour, did not deposit on standing, sp. gr. 1006; it contained a trace of albumen, but no sugar. The urine from the bladder contained 0·7 per cent. of urea, the fluid from the tumour 0·3 per cent. She was again discharged and readmitted June, 1883.

She then complained of more pain and sickness. She was much thinner. The tumour was twice tapped, the fluid withdrawn containing 0·5 per cent. urea on the first, and 0·6 per cent. on the second occasion, while the urine drawn from the bladder contained 0·7 and 0·6. The ulcer presented much the same characters as before, but there were two dark red patches on the surface of the remaining portion of the vagina. These were smooth, not raised, and did not bleed on examination. The discharge was very offensive and came away in gushes.

She was again discharged. She became greatly emaciated, suffered great pain, and died on September 23rd, having been convulsed and unconscious for several hours.

An examination of the abdomen was made thirty hours after death, and I am indebted to Mr. Victor Horsley, M.B., for the following account of the organs. There was no evidence of old or recent peritonitis.

Kidneys.—The tissues around the right kidney are but slightly adherent to the capsule. The kidney itself is converted into a large sac partly divided by one thin fibrous trabecula at the junction of the upper and middle third, the wall of the sac at this point being about a quarter of an inch thick and presenting slight traces of kidney substance as dark-red, firm tissue. The rest of the wall averages from two to three millimètres in thickness, and is also dark reddish in section and extremely dense. The lining membrane is smooth, shiny, with a few depressions on the anterior and posterior surfaces along the outer border,—obviously flattened sacculi. The largest of these is situated at about the middle of the organ at the posterior aspect, and has a sharp, well-defined mouth. The lining membrane forming the floor of these depressions, especially at the upper end of the kidney, is very hard and gritty; it splits off in flakes of same calcareous substance, but of a brownish colour. The rest of the lining membrane is of a pinkish-white colour.

Left adrenal.—The medulla is in a state of cystic, the cortex of fatty, degeneration, so that the wall is only about

one millimètre thick. The tissues around the left kidney are firmly adherent to the capsules. The capsule strips off with difficulty, leaving delicate trabeculæ of connective tissue on the surface. The cortex is of natural thickness, pale, œdematous, the vessels are empty, the pyramids flattened, eroded; there is a deposition of salts here and there beneath the mucous membrane of infundibula; also foci of suppuration in the same place and ulceration, mainly seen in the lower two thirds of the organ, with black discolouration from decomposition extending almost to the cortex, and dotted over here and there with yellow foci of suppuration about one to two millimètres in diameter. The epithelium of the pyramids appears slightly greenish. The pelvis is considerably dilated (about three times the normal size). All the infundibula are dilated; the mucous membrane is reddened and thickened, with numerous folds.

Ureters.—The left is dilated and adherent to the surrounding tissues; its mucous membrane in a state of chronic congestion. The right ureter is of normal size.

Bladder.—Chronic congestion of trigone. Rest of mucous membrane normal, except a small sacculus half an inch in breadth, and about one third of an inch in depth, formed by a hernia of the mucous membrane through the muscular wall.

Ovaries.—The right is small, cortex densely fibroid, scarred, and puckered all over. The left is fixed downwards and backwards close to the side of the uterus opposite the internal orifice by old adhesions. It is in the same condition as the right.

Fallopian tubes.—The right is connected with the ovary by numerous delicate old adhesions, normal size. The left is curved downwards and backwards, and then downwards and forwards again, so as to be in shape like an S over the left ovary, the anterior surface and upper border of which it covers, and is firmly adherent to it by old adhesions.

Right round ligament normal. Left firmly united to ovarian mass, otherwise normal.

Uterus.—The posterior surface on the right side at the level of the internal os is connected to peritoneal covering

of rectum by thin old fibrous adhesions. The greater part of the cervix of the uterus is totally destroyed; the fundus and body, together, perhaps, with the internal os, form a spheroidal mass, flattened in the antero-posterior direction and slung between the broad ligaments; external surface is smooth. The thickness of the walls varies from 0·5 to 1 cm.; it presents the ordinary appearances with normal ring of blood-vessels slightly interrupted here and there. The interior is a closed cavity, the internal os being apparently blocked by inflammatory adhesion. This cavity is roughly cylindrical in shape, about one inch and a quarter in length from above down and half an inch across; it contains pus. The mucous membrane lining it is thickened, nodular, of a dark red colour on the right side, and slaty-black colour in patches on left side. On section it appears to be one to two millimètres in thickness.

Vagina.—Of this tube there remains only the lower half. In this part the mucous membrane is smooth, otherwise normal, with the exception of a line of redness along the upper border. The whole circumference of the vagina, from this point to the lower border of the uterine mass, is represented by a foul ragged ulcer the floor of which is composed in the upper and posterior two thirds simply of sloughing subperitoneal connective tissue and fat. Close to the insertion of the vagina to the uterus there is little left of the posterior wall but the peritoneum itself, while the anterior has been destroyed nearly to the mucous membrane of the bladder. The sloughing process is not of an active kind; the term is applied to loose shreds of tissue undergoing slow death in consequence of the ulceration around them and at their base. The remainder, that is the lower and anterior portion of the floor, is composed of vaginal submucous tissue showing no signs of granulation. The margin of the normal vaginal mucous membrane is abrupt, its height being the normal thickness of the mucous membrane, slightly swollen on the anterior and posterior surfaces by hyperæmia. There is no induration or thickening at its base or edges (see Plate I.)

DESCRIPTION OF PLATES I AND II,

Illustrating Dr. John Williams' paper on Corroding Ulcer of the Os Uteri.

PLATE I.

Uterus with corroding ulcer of cervix.

A. Healthy mucous membrane of vagina.

B, B. On surface of ulcer, where the subperitoneal fat had been exposed.

C. On anterior wall of uterus in neighbourhood of inner orifice.

D. Bladder.

E. Ovary.

F. On connective tissue between uterus and bladder.

PLATE II.

FIG. 1.—Ulcer in situation of cervix uteri and vagina around.

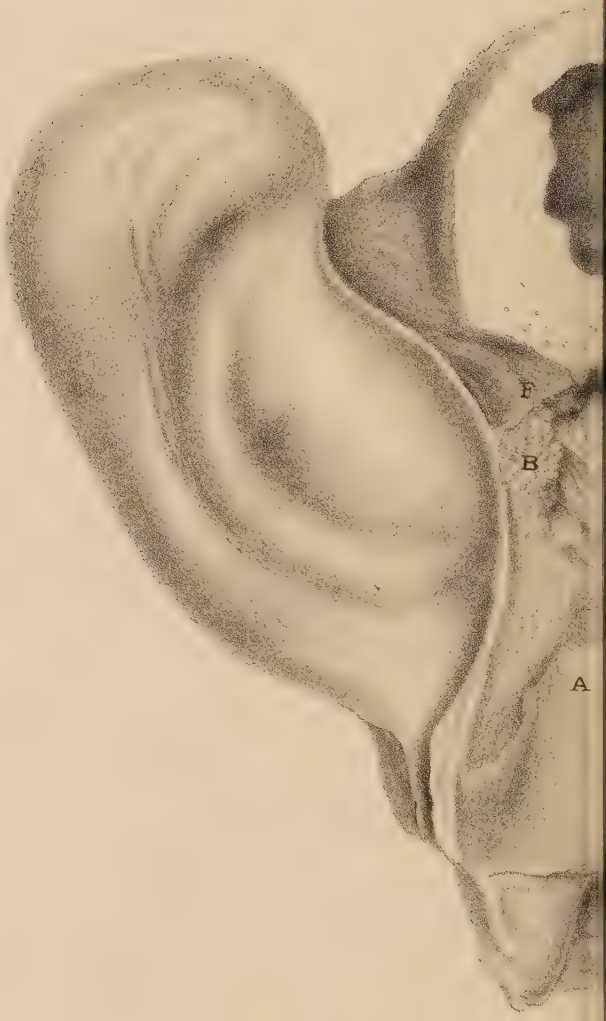
a, *a*. Border of ulcer sharply defined.

b, *b*. Ring of tubercles on posterior wall of vagina.

c, *c*. Cicatricial tissue.

FIG. 2.—A portion of surface of ulcer, showing the round cells on the surface and in the tissues immediately subjacent.

PLATE I.



S.G. Shattock del.

West, Newman & Co lith.

Peritoneum.—Douglas's pouch appeared to be perfectly normal, though on the point of being perforated by the ulcerative process.

The glands in the pelvis are not affected.

There is an old adherent clot in the vena cava and left iliac vein; the internal iliac arteries and their branches are rigid tubes, their walls being calcified. Under the tendon of the left psoas muscle on the ilio-pectineal line is a myxomatous mass as large as a walnut. It is evidently the bursa, normally situated at that point, diseased.

On looking through these cases we find that the progress of the disease is extremely slow, that it lasts many years without giving rise to a fatal termination or even to very distressing symptoms. Two of the patients were subjects of the affection for nine or ten years, and in neither of them were there any very troublesome or painful symptoms present until the last few months. One of them died of hemiplegia, the other is still living, and her suffering is becoming more severe. The third had the disease certainly for two years, but she may have had it for twelve; we cannot decide. She had other serious disease—pyelitis on the left side and dilated kidney on the right—which complicated and partly disguised the disease of the uterus and ultimately proved fatal.

The general condition improved greatly in two of the patients after the disease was discovered, for they became considerably stouter. This may have been, and probably was, due to greater care and better feeding. The third was thin, but she had been losing flesh only during the last eighteen months of her life, and this was fully accounted for by the loss of appetite and the vomiting dependent on the state of her kidneys.

The age at which the first symptoms of the disease were observed was fifty-two in one case, fifty-seven in the second, and fifty-four in the third. Charles Clarke states that he never saw it before the age of forty, and that it usually occurs between forty and forty-five. Churchill states that

he had observed it at a much earlier age. In my three cases menstruation had long ceased. The three patients had been pregnant, but none of them many times, the numbers being once, twice, and three times.

The discharge from the vagina varies in character at different periods of the disease. In two of my cases it was purulent or muco-purulent for years, occasionally stained with blood, frequently absent or very scanty for weeks or months, and with but slight odour; then reappearing in gushes of very offensive matter and associated with severe pain in the lower part of the abdomen. In the third case the discharge, when the patient was first seen, was offensive, came in gushes, and was at times absent. These gushes of discharge appear to arise from blocking up of the canal of the uterus leading to the accumulation and decomposition of the secretions therein, and not from the surface of the ulcer itself, as the condition found after death in Case 3 shows. Moreover, during the early period of the disease the discharge is slight, and it appears in gushes only after the cervix of the uterus has been in great part destroyed, and the disease has in this manner led to closure of the cervical canal.

Profuse hæmorrhage has been observed by Churchill. Clarke states that it occurs in cases where the coats of blood-vessels have been destroyed by the ulcerative process. Bleeding was very slight in my cases, indeed, a mere stain of other discharges in two of them.

During the early years there is but little pain; it is only when the cervix has been destroyed that it becomes severe, and then it is paroxysmal and is apparently due to accumulation of fluid in the cavity of the uterus. At a still later period the pain becomes continuous, and it is relieved only by the regular administration of anodynes. Even then it is not like the pain of cancer, and the expression of suffering so commonly seen in cases of cancer is not written on the face of the subjects of corroding ulcer.

In two of the cases the ulcer was observed at a very early stage; it affected the lips of the uterus around the os

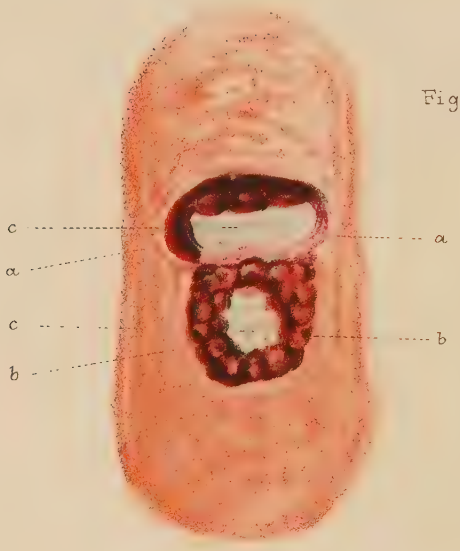


Fig. (1)

Fig. 2.

West, Newman & Co lith.

only, it then extended on to the vagina. In the third case it was of the size of a florin when first seen, had extended on to the wall of the vagina and destroyed the vaginal portion of the cervix, so that the remains of the cervix were on a level with the surrounding vagina. The ulcer was slightly depressed, but there was no induration of its base or edges; at a later period, when a considerable portion of the vagina had become involved in the disease, the edges of the ulcer were rigid. The surface of the ulcer was dark red, not grey or sloughy looking. Twice or three times I noticed a whitish appearance on a part of it, as if cicatrisation had taken place; this appearance was, however, more probably due to the exposure of fat. In my three cases the progress of the disease was symmetrical, that is, the whole circumference of the vagina was involved in it, and for about the same distance from the ulcers.

The manner in which the disease begins cannot at present be discovered, but its mode of progression, of cutting new ground, was observed in two of these cases. In one a distinct ring of dark brown tubercles was seen on the mucous membrane of the vagina beyond the edge of the ulcer (Plate II, fig. 1); in the other the mucous membrane along the edge of the ulcer became of a dark brown colour, and afterwards the epithelium fell off, as is seen in the specimen, and also dark red patches were seen surrounded by healthy mucous membrane. These appearances are precisely similar to those presented by lupus spreading in the face. Indeed, the ring of tubercles figured are precisely like lupus. The greyish appearances seen at the base of the ulcer after death are quite unlike those formed during life, for all the colour is lost.

These cases have been observed in the deadhouse by only a few pathologists. Charles Clarke had three specimens in his possession, and he has figured one of them. Klob has not seen a case, Klebs states he has seen two. Rokitansky says: "The latter (Clarke's corroding ulcer) may be compared to the phagedænic (cancerous) sore of the skin; without having a morbid growth for its base, it

gradually destroys the cervix and even the greater part of the uterus, and may extend to the rectum and bladder. It is an irregular, sinuous, jagged ulcer, the tissues at the margin and base of which are thickened and hypertrophied, in consequence of a sluggish inflammatory process; the base presents a greenish and brownish-green discolouration, with a slight glutinous and purulent, or a more copious watery, secretion. There are no granulations, but we find a gelatinous exudation, and, according to the state of the immediate reaction, the tissues are converted into the above-mentioned products of the ulcerating surface" ("Pathology," vol. ii, p. 291, 'Syd. Soc. Trans.').

Förster, in his 'Pathological Anatomy,' writes:—"This rare form is found mostly in old people without appreciable cause; the ulceration begins in the vaginal portion or on the cervix, and spreads itself, destroying the tissues above the cervix and the greater part of the body, layer by layer; it sometimes attacks and perforates the urinary bladder and the intestine. The ulcer has an irregular form, its base is villous, discoloured, greenish black, the surrounding tissue somewhat thickened and hardened. The microscope reveals in the base no trace of cancerous tissue, and proves therefore that the process of ulceration depends on gangrenous destruction. Considerable bleeding sometimes takes place in addition to a purulent foul discharge mixed with necrotic connective tissue." Förster's description is clearly that of the ulcer when seen in the dead body, and not during life, and fails to convey the appearances seen at the bedside.

Förster observed a young woman, married a short time, in whom the disease had involved the whole of the vagina, and destroyed the cervix and body of the uterus, and he was unable to find a trace of cancer or epithelioma in the base of it.

Emmet saw a case in which "everything seemed to have been destroyed but the bladder and urethra," and the ulceration had spread externally, but gives no account of the minute anatomy of the diseased tissues.

I have made sections of both the uterine and vaginal portions of the ulcer, and some of these are exhibited here to-night. These clearly show that the disease is neither cancer nor epithelioma, for there are no structures resembling these to be found in it. The base of the ulcer is, indeed, formed by the tissues of the parts with some small round cells. These round cells do not penetrate deeply into the tissues, but are limited to the surface layers. Strands of connective tissue which break down less rapidly than the other structures are found in the ulcer; these have many of the round cells in and upon them, but I have not been able to find any sloughs, although the shreds named are evidently undergoing destruction. This is in accordance with what was observed during life, for the surface of the ulcer never presented an ash grey or sloughy appearance, but a dark red surface which bled readily. There are no appearances of increased vascularity.

The microscope revealed no other characters than those of a simple ulcer in the third case, nothing to indicate the malignancy* to which the clinical history seems to point. Although these ulcers appear to be malignant, yet they are distinct from cancer; both their clinical history and anatomical characters join in showing this. Perhaps there are two divisions of them, one being lupus and the other simply senile gangrene. In my second case tubercles and cicatrised surfaces were observed precisely similar to those seen in lupus of the face. In the third case slight hæmorrhage was found at the edge of the ulcer and elsewhere in the mucous membrane of the vagina, and after death the internal iliacs and their branches were found to be rigid tubes. This calcification of the channels carrying the blood into the part ulcerated was probably the cause of the destructive process. Whatever be the nature of the process it is certain that John and Charles Clarke described under the name of corroding ulcer a disease clinically and anatomically distinct from cancer in any of its forms.

* This word is used in the sense of incurable.

The PRESIDENT was certain he was but expressing the general feeling of the Fellows present in thanking Dr. Williams very cordially for his able and interesting monograph on a rare and interesting disease. It was unfortunate that in the second case no post mortem was allowed, but taking together the results of the post mortem in the third case, the symptoms observed by Dr. Williams through a series of years in each of his cases, and the observations of other writers to which Dr. Williams referred, he (the President) thought that the disease must now be definitely withdrawn from the list of cancerous or cancroid affections. Now that Dr. Williams had drawn attention to the subject in the graphic manner he had done, not impossibly other cases might come to be identified with corroding ulcer which a too hasty examination had previously classed with ulcerative epithelioma.

Dr. PRIESTLEY said that the Society and indeed the profession at large were much obliged to Dr. Williams for his attempt to elucidate so obscure a subject as corroding ulcer of the os uteri. He said it was certainly obscure, and some gynæcologists in large practice were doubtful if they had ever met with a case, and writers on the subject were quite at issue as to its pathology. While such distinguished authorities in Germany as Kiwisch and Scanzoni regarded it as a variety of encephaloid cancer, to the best of his recollection Courty and West regarded it as a form of epithelioma. The disease was certainly not very frequent, for in the retrospect of hospital and private practice he could not recollect any large number of cases, and yet he believed he had seen the disease in its characteristic form more than once, and perhaps more frequently if he had not excluded those cases in which there were somewhat indurated margins to the ulcers, and the feeling of tubercular deposit about it. Sir Charles Clarke's description of corroding ulcer was perfectly clear and precise, and it certainly differed remarkably from scirrhus, or encephaloid, or epithelial disease. In the corroding ulcer there were no indurated margins, no fixing of surrounding parts, and the disease was often of long duration, killing the patient slowly but surely by its exhausting discharges. Even the character of the pain was peculiar according to Sir Charles Clarke, being rather a sensation of great heat and burning than the gnawing pain of cancer. Dr. Priestley believed he had seen cases of corroding ulcer attacking the cavity of the uterus, without in the least degree affecting the os uteri. Dr. Duncan would recollect that they had both seen two cases answering more or less to this description. In both there were exhausting discharges from the interior of the uterus. In one the discharge was chiefly serous with intermitting hæmorrhage, and in the other it was muco-purulent and offensive with frequent hæmorrhage. In neither was there evidence of much enlargement or thickening of the walls of the uterus, but the womb cavity was

enlarged and dilated. The patients in both cases were advanced in life, the symptoms extended over years, and there was comparatively little pain. Death eventually resulted from exhaustion, and treatment had little influence in controlling the disease. If he saw a case of corroding ulcer of the os uteri early enough he should certainly try to destroy it by nitric acid, acid nitrate of mercury, bromine, or the actual cautery, but the general health of the patients was generally so feeble that the results of treatment were not very promising, and the history of such cases as Dr. Williams had recorded showed how grave must be the prognosis.

Dr. Matthews Duncan was deeply interested, for the subject had been an object of his special study for many years. He thought the disease was a department of what was, perhaps rather vaguely, known and described as lupus. He could not be sure he had seen a case identical with those of Dr. Williams as to situation. But many examples of lupus of the lower vagina and external organs had come before him. Lupus of the external organs seemed peculiar in producing hypertrophies which in size were never, so far as he knew, equalled by the hypertrophies observed higher up in the passages. Again, he had seen the disease in the uterus, and to one case Dr. Priestley had referred which was pretty fully described by Dr. Duncan in the Society's 'Transactions' (vol. xxi, for 1879), and where the microscopical characters were carefully given.

Dr. William A. Duncan said how important it was with regard to the treatment to make out the precise pathological significance of the so-called corroding ulcer of the os uteri. He disputed its analogy to rodent ulcer (which some authors affirm), as rodent ulcer originates in structures not found in the cervix uteri. He considered Dr. John Williams's cases to be primarily lupus, which at a late stage took on an epitheliomatous nature, a change which has been found to occur in other parts of the body.

Dr. Chalmers said that probably cases of corroding ulcer were not so rare as the remarks of previous speakers seemed to indicate. He had during the last two years seen two cases, one occurring in a woman under forty years of age, the other being over seventy. Both were characterised by an irregular cavity with sharply-cut edges, by pain, hæmorrhage, and discharge. In the case of the old woman the cavity was small, the bleeding, pain, and discharge slight, but in the younger patient the disease had eaten away the whole of the cervix and had invaded the body of the uterus itself; the pain was frequent and intense, the discharge copious, offensive, and continuous, and the hæmorrhage profuse. No treatment was attempted beyond easing the pain, controlling the bleeding, and deodorising the discharge. The conditions of malignancy required by Dr. Matthews Duncan

were in this case supplied, in so far as the specialist called in mentioned a time within which the patient would probably die, and the patient is since reported to be dead.

Dr. Galabin asked Dr. Williams whether he considered that there was any relation or analogy between the disease described by him and the so-called rodent ulcer of the skin. He understood that he regarded them as having no connection, but it might be worth while to remember that the growths in rodent ulcer had been difficult to detect in microscopic sections, so that it had often been regarded as simply a malignant ulceration, but that it was now agreed to be really a form of rodent cancer. In two of Dr. Williams's cases there appeared to be something in the form of growths shown by the tubercles at the edge. The only alternative therefore seemed to be between regarding this as lupus or as a growth which must be termed cancer in the wide clinical sense of malignancy, even if not a carcinoma in histological character. In the case of apparently malignant ulceration of the body of the uterus referred to by Dr. Priestley and Dr. M. Duncan, he had been allowed the opportunity of making and examining sections. In that case there was considerable deposit thickening the walls of the uterus, though it had not the character of carcinoma, but consisted mainly of small cells like leucocytes, similar to the cells described by Dr. Williams in his case. He was inclined to think that such a cell deposit might really be of the nature of growth rather than of inflammation, and even thought that he discovered in Dr. Duncan's case that the cells in some places differed from leucocytes, being united by tailed processes.

Dr. John T. Griffith had had under his care a case in which disease, probably similar to the one under discussion, affected the cavity of the uterus in a woman of thirty. It was characterised by very little pain, and was unaccompanied by any glandular enlargement, proving fatal after two or three years by repeated and uncontrollable hæmorrhage. The case was seen by Drs. Matthews Duncan and Barnes. Unfortunately no autopsy was permitted, but the left segment of the organ just before death could be felt enormously infiltrated.

Dr. Herman had had a case under his care in the London Hospital of peculiar ulceration of the vagina, which commenced as circumscribed black sloughs, which fell off leaving an ulcerated surface exposed. These ulcers healed, and afterwards fresh ulcers formed in a similar way. There were no tubercles like those of lupus; antisyphilitic treatment did not benefit the patient, the sores were not inoculable, and the general health did not suffer. There was in the London Hospital museum a specimen, presented by Dr. Ramsbotham, of ulceration of the whole interior of the uterus, thinning and expanding the organ, and perforating the peritoneum.

Dr. Routh said he had seen two cases like those mentioned by Dr. John Williams. They looked like jagged ulcers, excavated, with projecting edges, but the inside resembled more a piece of raw muscle, and was entirely without granulations. The odour was most offensive and the parts bled readily on touching; indeed, his cases, as also two others which his colleague Dr. Rogers had had under his care, were remarkable for this tendency to bleed. The surrounding parts were in no way indurated, and the cervix quite moveable; it was this entire absence of induration that made him dissent from Dr. M. Duncan's view. He had never seen a case of lupus without induration and hypertrophy intermixed with it. Another thing remarkable in these cases was that whatever local measures were applied no healing process followed. In lupus cases such healing did occasionally occur in parts. He (Dr. Routh) had tried nitric acid, nitrate of mercury, bromine, and even the actual cautery, without the slightest good. To him it was a question how far there might not be a strong scrofulous or syphilitic taint, which led to the development of this erosion in ill-fed and very weakly persons. These ulcers appeared to him to resemble the old Swan Alley sore described so well by Samuel Cooper, occurring in the intemperate, half-starved prostitutes found, in his days, in the lowest slums of the Thames district, only they were less rapid. Dr. Routh, however, thought there was some inconsistency in the author's statement, able and graphic as his paper was, if one case was analogous to senile gangrene and another to lupus. He (Dr. Williams) had stated the surrounding vessels in the one were clogged up, and so precluded hæmorrhage. This was a different pathology from that of lupus, and would not account for those cases where hæmorrhage was very great.

Dr. Aveling said that Dr. Rigby believed the *burning* pain which accompanied this form of ulceration was a distinguishing feature, it being unlike that of cancer, which was of a darting character. He would ask Dr. Williams whether he attached any importance to this symptom in forming a differential diagnosis?

In reply, Dr. Williams said that rodent ulcer was epithelioma starting from the hair follicles and sweat glands, and corroding ulcer of the cervix could not be such. In one of his cases it appeared to be lupus, for the ring of tubercles with the cicatrix could be nothing else. He had not examined this specimen with the microscope, for the patient was still living. The third case was, in his opinion, a case of senile gangrene progressing slowly and depending on calcification of the internal iliac arteries and their branches on both sides. He had used the term malignant in a loose way and in the sense of incurable only. He had seen one case of ulceration of the inner surface of the body of the uterus. The patient was over sixty years of age,

had suffered long with offensive discharge, and was very fat. She died of some other affection. At the autopsy the uterus was large, the walls thickened, the cavity large and containing a lot of broken-down dark material. Sections of the wall showed nothing except the muscular fibres of the uterus running to the surface, and in them many round cells. There was nothing to indicate malignancy. Dr. Williams had had recourse to no local treatment.

APRIL 2ND, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—60 Fellows and 9 visitors.

Books were presented by Dr. W. H. Acland, Dr. G. H. Darwin, Dr. Eustache, and the Middlesex Hospital Staff.

James Jackson, M.R.C.S.; Hugh H. Massey, M.R.C.S.; Arthur Oakes, M.D.; and A. Marmaduke Sheild, M.B. Cantab., were admitted Fellows of the Society.

E. A. Gaynes Doyle, M.R.C.S. (Dawley); John C. Duke, M.R.C.S. (Lewisham); John J. Eyre, L.K.Q.C.P. (Forest Hill); and Asutosh Mitra, L.R.C.P. (Calcutta); were declared admitted.

The following gentlemen were proposed for election:—Stephen Herbert Appleford, L.R.C.P. Lond.; Thomas H. Appleton, M.R.C.S. Eng.; William Job Collins, M.D.; John Hopkins, L.R.C.P. Ed.; Jamieson Boyd Hurry, M.B. Cantab.; James Inglis, L.R.C.S. Ed. (Aberdeen); William Ward Leadam, M.D.; George Francis McCarthy, M.R.C.S.; Edward Charles Maynard, L.R.C.P. Ed. (Folkestone); Walter Roughton, L.R.C.P. Lond. (New Barnet); Charles John Stansby, M.D. (Bermuda); Edward W. F. Stiven, M.D. (Harrow-on-the-Hill); George H. W. Thomas, M.R.C.S.; William Travers, M.D.; and Alexander Waugh, L.R.C.P. Lond. (Midsomer-Norton).

SPONDYLOLISTHESIS.

Dr. Franz Ludwig Neugebauer, of Warsaw, exhibited to the Society specimens illustrating spondylolisthesis, and presented copies of his writings on the subject.

The President, after making some remarks on the interesting character of Dr. Neugebauer's communication, and mentioning the fact of his being the son of the obstetrician who invented the speculum bearing his name, tendered to him the thanks of the Society both for the able exposition of his views on spondylolisthesis and for the gift of his works to the Library.

Dr. Barnes cordially echoed the remarks of the President expressing his sense of the interest of Dr. Neugebauer's communication. He repeated an opinion he had before stated that we must not seek for the explanation of spondylolisthesis in one pathological process. Several causes may lead to this dislocation. In his own first case, the one referred to by Dr. Neugebauer, the subject had been in good health until she married. The dislocation was very marked when he was called in to deliver her. It appeared to have arisen as the result of injury. He felt convinced that these cases were not so rare as had been thought, and now that attention had been called to them, they would be detected and the better appreciated after the researches of Dr. Neugebauer.

Mr. William Adams observed that although his name had been mentioned in connection with the subject now brought before the Society by Dr. F. Neugebauer, the observations he had made at a former meeting of the Society had been rather in connection with congenital dislocations of the hip-joint. However, Mr. Adams had had the opportunity of examining the very interesting and rare specimens of malformation and arrested development in the different regions of the spinal column now exhibited to the Society by Dr. Neugebauer. These specimens consisted of a large number of separated vertebræ exhibiting various stages and degrees of arrested development, chiefly affecting the oblique articulating processes, the laminæ, and what is of special interest in connection with the present subject, imperfect ossification, leading to the complete failure of union between the laminæ and the bodies of the vertebræ, affecting the fifth lumbar vertebra, so as to allow the body of this bone to slide forwards towards the pelvic cavity, and thus narrow the antero-posterior diameter of the pelvis. This seemed to be the most

characteristic specimen as bearing upon the present subject of spondylolisthesis. In some of the specimens the arrest of development and process of ossification affected only one side of the vertebræ, involving in different degrees the oblique articulating processes, the laminæ, and the bodies, so as to allow of lateral displacement. These specimens appeared to be of great interest, and having been brought to this country for a short time, Mr. Adams suggested that a committee of the Society should be appointed to examine and report upon them. Dr. Neugebauer did not consider that spondylolisthesis ever resulted from the destructive processes of caries and necrosis of the vertebræ, but regarded it as essentially depending upon malformation and arrested development of the vertebræ, as exhibited in the specimens, although the displacement of a body of one of the vertebræ forwards might occasionally result from fracture through the arch of the vertebræ.

A committee consisting of Dr. Robert Barnes, Mr. Doran, Mr. William Adams, and Mr. Noble was appointed to examine and report upon Dr. Neugebauer's specimens.

DEATH OF THE DUKE OF ALBANY.

The President stated that it had seemed well to the Council that the Society should forward to the Queen and the Duchess of Albany addresses of condolence in connection with their recent great bereavement. If the Society adopted this view he would ask some Fellow not on the Council to move the necessary resolutions.

It was proposed by Dr. Routh, seconded by Dr. Horrocks, and carried unanimously, "That the President be requested to draw up and send to Her Majesty the Queen and H.R.H. the Duchess of Albany, addresses of condolence."

DOUBLE DERMOID OVARIAN CYSTS.

Dr. Carter showed two dermoid cysts which were removed at the post-mortem examination of a woman, aged fifty; single. She had first noticed a small rounded swelling in the right iliac region in August, 1883. She saw a doctor, who ordered her to wear a belt and pad to support the tumour. Dr. Carter saw her ten days ago in consultation with Dr. Henderson, under whose care she had recently come. The patient was then in a very weak state, extremely emaciated, and almost too ill to bear examination. The abdomen was moderately distended, and through the thinned parietes a tumour with irregularly nodulated masses upon it was clearly made out. It occupied the right side of the abdomen, not extending much beyond the mid-line; fluctuation through it was somewhat obscure; both flanks were resonant and there was no evidence of ascites; the mass was slightly moveable and appeared to have an offshoot passing into the left iliac region; a hard mass was felt in the epigastric region; the pelvis was clear, though pressure upon the mass was conveyed through the uterus. It was diagnosed as cancer of the ovary with some secondary deposits in the omentum. Six days after this she was seized with pain, faintness, and marked depression and extreme difficulty of breathing. It was thought hæmorrhage into the cyst or the peritoneum had taken place, the abdomen being slightly swollen and more tender to touch. She rallied somewhat from this state and then slowly sank, dying on the fifth day following. At the autopsy a large cyst was found filling the right half of abdomen; to it the omentum and coils of intestines were closely and intimately adherent. On its exterior were several large masses of cancerous growth; it sprang from the right side. On opening it the walls were generally thickened and infiltrated with cancer; it contained a large quantity of recently formed blood-

clot, thick putty-like material, hair, and a tooth. On the left side was found a small cyst, the size of a cocoa-nut, to which the left ovary was attached; this contained the same putty-like material with a quantity of hair. The omentum was thickened and cancerous; the liver was much enlarged and infiltrated with medullary cancer; the glands, from the cervical to the lumbar, were enlarged and cancerous.

Mr. Knowsley Thornton said there were three points of special interest in this specimen. 1. It illustrated a very common condition, dermoid degeneration of *both* ovaries. 2. The fact that when we find this dermoid formation in both ovaries it is frequently associated with malignancy. 3. Hæmorrhage into the interior of a malignant ovarian tumour as a cause of death. He would recall Dr. Playfair's case recently reported and had himself met with a similar one. Dr. Carter's case was quite a type of its class.

THE RELATION OF PROLAPSE OF THE VAGINA TO HERNIA, ILLUSTRATED BY TWO PEDIGREES.

By Alban Doran.

In calling the attention of the Society to the appended pedigrees, it is needless for me to enter into an elaborate discussion on the relation of intestinal hernia to prolapsus ani, floating kidney, pendulous belly, and uterine and ovarian displacements. The opinions of many scientific observers are already well known, and for some of the most recent additions to our knowledge of the affinities of different forms of displacement of the abdominal and pelvic viscera, I must refer the inquirer to the researches of Landau, collected in his work, 'Die Wanderniere der Frauen.' The two following genealogical tables are of interest as tending to prove that prolapse of the vagina must be ranked as one of the numerous forms of displacement that are observed in families subject to a strong predisposition to hernia and its allies. For several years I have been struck with the frequency with which patients suffering from prolapse of the vagina have informed me that several of their male and female blood-relations were subject to "ruptures in the groin" or "always wore a truss." It is true that hernia is a very common infirmity and that the attention of a sufferer from prolapse would be turned to the subject of her relatives' disorders, which she might otherwise have ignored. But in two cases, both attending as out-patients at the Samaritan Free Hospital, the family history of hernia was so marked that I considered that the pedigrees would prove of some interest to the Society.

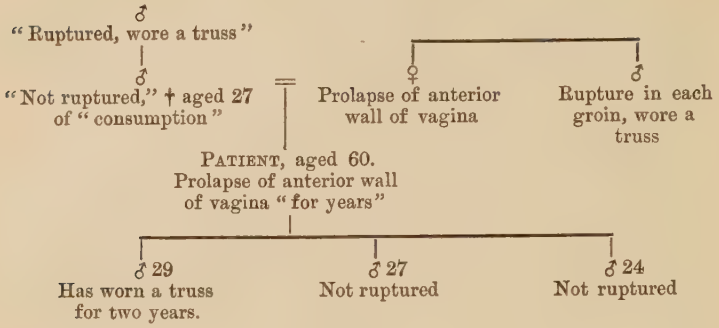
The first case is that of an old married woman, who informed me that she "had a falling of the womb for years." The eldest of her three sons, aged twenty-nine, had been obliged to wear a truss for the last two years "on account

of a rupture in his groin;" the two younger had not as yet, to her knowledge, shown any symptoms of hernia. But she always remembered that her own mother had a "falling of the womb," just like her own case, and as no instrument was required, and the womb did not appear externally, according to the patient's account, we may conclude that the mother, in all probability, suffered from prolapse of the vagina, although the uterus might have been involved. The patient further informed me that her paternal grandfather was ruptured and wore a truss, whilst her maternal uncle had a rupture in each groin and also wore a truss. Her husband, who died young, had no rupture.

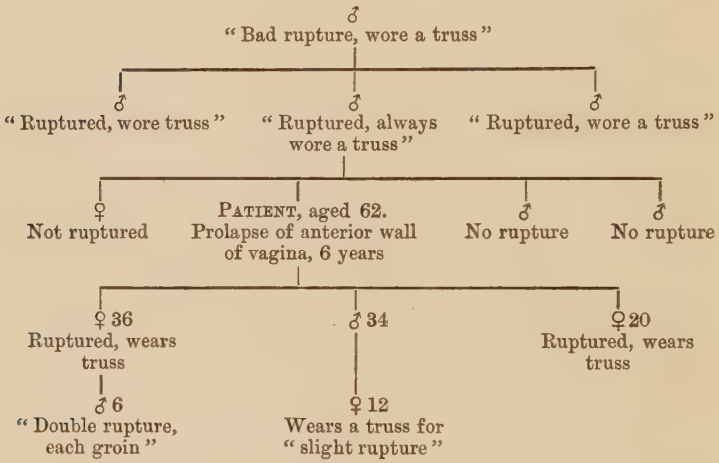
In the second case, the family history was still more marked. The patient was a married woman, aged sixty-two, suffering from prolapse of the anterior vaginal wall, which, as in the last case, presented in itself no feature of unusual interest, and in neither was there marked displacement of the bladder. Ever since a miscarriage, when forty years of age, she had been troubled with bearing-down pains, and when, six years ago, she first noticed what she believed to be a "falling of the womb," she thought her case very hard, as her sister and two brothers had no rupture nor "any blemish whatsoever," though her paternal grandfather, her father, her two paternal uncles, her two daughters, and lastly her grandson and granddaughter all have or had "the rupture in the groin," and have been compelled to wear trusses. The ruptured granddaughter was the child of the patient's only son, who does not wear a truss. The annexed tables will show the pedigree of the two cases at a glance.

Note.—Since preparing the pedigrees of the above cases, I have seen, in the out-patient department of the Samaritan Hospital, a patient suffering from prolapse of the posterior vaginal wall. She informed me that both her paternal uncles and her only brother had rupture in the groin and wore a truss, and she was under the impres-

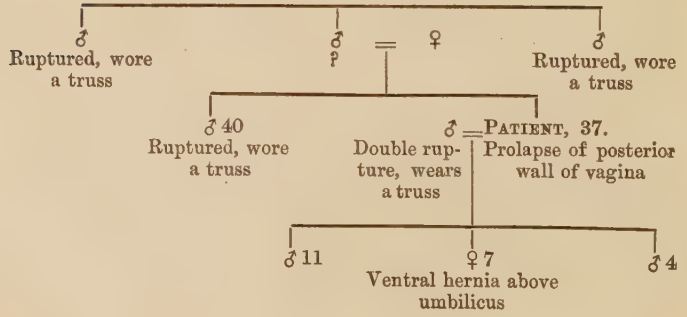
Case I.



Case II.



Case III.



sion that her father had a "weakness in the belly." It happened that she has married a man who has a rupture in each groin and wears a truss. Of the three children that are the result of this union, two have, up to the present, shown no sign of any hernia. The third, a robust girl seven years of age, whom I have examined, has a ventral hernia above the umbilicus, caused by a wide separation of the inner borders of the recti. Below the navel, these muscles bear their normal relation to each other.

Dr. Matthews Duncan had long taught that intestinal hernia and procidentia uteri were alternative conditions. The whole of Mr. Doran's excellent paper was a part of the great subject of the retentive power of the abdomen or its pressure relations.

Dr. Champneys said that in Landau's work on moveable kidney various associated conditions were mentioned. Hernia was found in 7 per cent. of those suffering from moveable kidney, descent of the uterus or vagina in 13 per cent., "retroflexion" in 15 per cent., and pendulous belly in 25 per cent. No explanation is given of the term "retroflexion," but it probably means retroflexion and retroversion with descent (or rather descent with retroflexion and retroversion). It was his habit to inquire of patients suffering from descent of the pelvic organs as regarded their family history of hernia, prolapsus uteri, and prolapsus ani in children. One history thus elicited was the following: A woman, aged fifty-two, had had procidentia since the age of twenty-seven, her eldest daughter (aged thirty) has had procidentia since the age of twenty-one; all her three sons had prolapsus ani as children.

Dr. Horrocks said that prolapsus uteri in one person, associated with other forms of hernia in different members of the same family, did not entirely depend upon hereditary anatomical weaknesses, but that it arose partially from the fact that the different members of a family had all to do hard work: for example, a girl was a general servant and got prolapsus uteri, her brother was a labourer and got inguinal hernia.

Mr. Alban Doran, in reply, stated that in many cases where no history of rupture amongst relatives could be obtained, it was highly probable that the patients were unaware of the existence of hernia among their kindred who really might be so afflicted. Brothers did not necessarily tell their sisters that they have ruptures and wear trusses, and the infirmities of older relatives were often unknown to these patients. There certainly was a form of prolapse of the vagina, and of the uterus as well, involving the bladder, and another variety where the bladder

was in no way displaced. In a case which Mr. Doran had recently examined, the anterior wall of the vagina bulged freely downwards between the labia, but the sound, passed into the urethra and pressed against the posterior wall of the bladder, passed directly upwards. No part of the bladder descended into the pouch formed by the prolapsed vagina. The distinction between prolapse of the generative organs, with and without cystocele, is an interesting question to solve in relation to hernia.

UPON THE BENEFITS DERIVED FROM THE INDUCED CURRENT DURING PARTURITION.

By Walter Kilner, M.B. Cantab., M.R.C.P.

(Communicated by W. S. A. Griffith.)

During the last few years I have applied the induced current in nearly 300 cases of confinements, and with the exception of the first few have had very great success, so great that for some time past I have been in the habit of administering it to every woman I attended; and indeed the more I see of its benefits the more satisfied I am with the results obtained. I feel certain, therefore, that if a fair trial is given the induction coil will take a regular place among obstetrical instruments.

The apparatus used was one or other of these two pocket coils. I connected them in the ordinary way to these pads made of spongiopiline, and having a piece of metal (tinned sheet-iron is very good) beneath the waterproof covering, I then placed them on the abdomen of the patient, and kept them in their proper position with the usual binder. In this way I had my hands free as usual. Whenever the uterine contraction commences I set in action the current, stopping it when the uterine action finishes. The details of the method I will leave for the present, and consider the benefits derived from the use of the current, which are as follows:

1. Relief of pain.
2. Prevention of and restoration from fatigue.
3. Prevention of post-partum hæmorrhage.
4. Effects upon the circulation.
5. Increase in frequency and strength of the uterine contractions.
6. Prevention of vomiting and nausea.

To prevent any ambiguity the word "pain" will be

restricted in this paper to the sensation, and will not be used in the obstetric phraseology.

In quite 95 per cent. of labours I have found that the current mitigates the pain. But in each individual case the relief obtained must be different because no two women suffer to the same extent, nor even does the same woman equally in all her confinements, although they may occur under as nearly as possible similar circumstances. What I have noticed is, that when the patient suffers acutely without any obvious reason connected with the physical condition of the maternal parts or with disparity in size between the mother and child, we may be certain that very great relief will be obtained by the use of the current. But, of course, the pain caused by the stretching of the vulva cannot be relieved by the current, although I have met with two cases where the patients said that they did not feel any pain as long as the current was passing. The first of these was fortunately the third time only of using the induced current in labour, and was the main cause of my studying its influence upon pain to the extent I have, because my first idea was only to be able to intensify the uterine contractions so as to obviate as far as possible the use of the forceps, and to have an agent more under control than ergot. In this case the woman previously had had six children, and as the uterine contractions had become weaker, the intervals being ten instead of two minutes and the os being fully dilated, I thought it was a good case for trial of the coil. After the labour was over she volunteered the statement that she *had not felt any pain* since I applied the instrument, and when questioned she replied that she had a sensation of forcing downwards without pain. In many instances, although such striking results are not obtained, we find that great relief is given. For example, take a primipara who when we enter the room is calling out at every uterine contraction, yet she becomes quiet almost directly the current is used, even if after a short application it is stopped. Again, it is a very common occurrence for the patient to call out at the commencement of every

uterine contraction to have the coil set in action. Several times I have been asked to leave off the coil as the patient thought the uterine contractions "were doing no good," because she was so little conscious of them, although as felt per vaginam the uterus was exerting a greater force than without it. After having used the coil for the relief of pain in a good many straightforward cases I wanted to try it in those where forceps was required, and in these the conclusion I arrived at is there is a certain mitigation of pain, but at the same time not nearly sufficient to be of much benefit, so that for this purpose I consider the coil useless.

The explanation of the relief of pain is difficult, but one view I have long held is that a great part of the pain endured by women during labour is pathological and not physiological, being either neuralgic or else what we may call a hysterical hyperæsthesia, and that the coil only relieves the pathological portion of the pain. This theory derives support from the fact that sometimes we find labour going on with very little pain. For example, one lady said that all the pain she suffered during her confinement was not so severe as a very slight toothache. Another woman with seven children had in each, including the first, only two uterine contractions when awake, while all the rest of her labours went on during sleep.

Another case, even more to the point, was a woman (multipara) who got up in the morning feeling quite well and after two or three hours felt a slight uterine contraction, so slight that she would not have noticed it except for the rupture of the membranes. A second and third equally slight contractions followed immediately and the child was born. She said that she had no sensation of pain except just as the child was passing the vulva. If these women have been so little distressed, why should others suffer more unless there be some obvious reason, such as disparity of size between mother and child? And, allowance having been made for the high sensitiveness of some women, is this extra pain health?

The next division of our subject is "Prevention of and Restoration from Fatigue." For a long time, with one exception, I have not seen an instance where it could have a restorative effect, because I have been in the constant habit of using the coil in every confinement, so that cases cannot arise in which the patient becomes prostrate and the current able to alleviate, as it has been applied the whole time. However, I have notes of a few cases taken when I dared not (from pecuniary reasons) apply the current to all my patients. I will quote two instances.

Mrs. B—, æt. 30, first confinement. Labour commenced about midnight, and at four o'clock in the afternoon I saw her and found the os about the size of a crown piece and very rigid. Injected hot water. In ten minutes os fully dilated. The head, however, remained afterwards some time stationary in the pelvis, and the pulse rose to 120 per minute in the intervals and higher during the uterine contractions. These took place about every three or four minutes, and were losing their power. She complained of being worn and faint. A gentle current was now applied during the uterine contractions only. After the first one the pulse-rate during the interval fell to 80, and after the second to 60 per minute. Subsequently it rose to between 80 and 90 per minute, during and between the uterine contractions, and remained so for about twenty minutes. All feeling of prostration vanished. The uterus regained its force, and the contractions took place about every half minute. Subsequently forceps had to be used; not from the patient being prostrate, but owing to the head being fixed in the pelvis.

Mrs. C—, third confinement. I was called about 4 a.m., as labour had commenced thirteen hours previously. The patient had been very well until then, when suddenly the uterine contractions left her, and she became very faint. When I saw her she was lying on the sofa, not daring to move, pale, cold, and perspiring. Pulse 140. No heart disease. The os was as near as possible fully dilated. I gave a dose of ergot with no effect. Then I applied the

current. Uterine action was not aroused, but in half a minute her pulse fell to 108 and all sense of prostration disappeared. Subsequently she was delivered naturally.

As a means of prevention of fatigue almost every case is an instance because of the alleviation of pain, and besides, in nearly every case, labour is shortened by intensifying the uterine contractions.

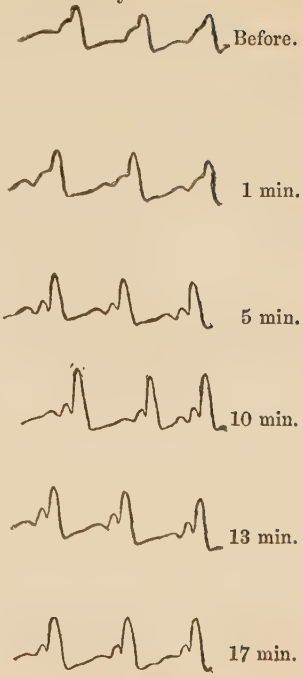
Post-partum hæmorrhage.—This has only occurred in two cases after the use of the coil, and in none of these severe. The first one was a primipara ; an unhealthy, flabby woman who had a tedious labour, and in whose case the induced current did not induce uterine contractions. In fact, for that purpose the coil was a failure. The hæmorrhage was easily stopped by pressure. The other case happened this year. Fourth confinement. Labour had commenced four hours previous to my visit, and the uterine contractions were then about ten minutes apart. The os was very nearly dilated. But her pulse was 150 per minute, from some cause which I could not ascertain. No heart disease. The current was applied and the child born in fifteen minutes. Whilst I was tying the cord the uterus relaxed, hæmorrhage into it taking place. Upon pressure the uterus contracted and expelled both the blood and placenta. Slight pressure was applied for an hour or two and no further hæmorrhage took place. Pulse-rate continued 150 for two days and then fell gradually. The current did not affect the pulse as far as rate was concerned. In one other case I applied the coil to restrain post-partum hæmorrhage, which was going on when I arrived. It stopped immediately. As out of nearly 300 successive cases post-partum hæmorrhage only happened twice I think it cannot be denied that the current must exert a favorable influence in preventing this serious accident. This evidently takes place in two ways, one by causing the uterus to contract firmly, the other by the effect produced upon the circulation lowering the arterial tension, thus reducing the tendency to hæmorrhage.

This brings us to the consideration of the effect the coil

produces upon the pulse during labour. Very soon after I began to employ the coil for this purpose I noticed that the pulse-rate was much affected as in the two cases just now mentioned, so that I began to investigate the subject, carefully noting the pulse-rate during and between the uterine contractions, and arrived at the following conclusion: In ordinary cases the pulse-rate becomes equalized, rising in the intervals and not increasing in many cases during the uterine contractions. During the latter part of the first stage I found the pulse-rate to be between 85 and 95 per minute, and this I look upon as normal during the application of the coil. This rate is not unfrequently maintained during the whole of the second stage, or should the uterine contractions be violent or very prolonged, more especially when the woman holds her breath well, the pulse-rate will exceed this number during the uterine contractions. But as the whole character of the pulse was altered I took a numerous series of tracings from healthy adults whilst an induced current was passing, and observed in every case, no matter where the electrodes were placed, the arterial tension to be lowered, although in some much more than others, according to the previous condition of the pulse, the change taking place in a few seconds. Of these I produce two, one from a strong healthy man, an officer in the mercantile marine, and the other from a lady in good health, but eight and a half months pregnant. Every precaution was taken that there should be neither movement of the arm nor of the instrument. Pressure remained unchanged.

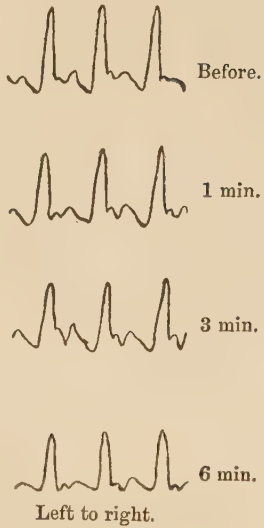
As might be expected from the action of the current upon voluntary muscles the uterine action is increased, but here, unfortunately, will sometimes fail just when its help is most wanted. But between absolute failure and the production of almost continuous uterine action there is every gradation. In cases where it is necessary to induce very strong uterine contractions, for instance, to obviate the use of the forceps, I have found by practice that the current will not retain its stimulating powers for

No. 1.
Healthy man.



Right to left.

No. 2.
Induced current effect
on pulse radial.
(8 months pregnancy.)



Left to right.

a very long period, generally from an hour to an hour and a half, while, however, it usually exerts its sedative action for a much longer time. As a rule the following occurs :—The first uterine contraction during the application of the coil is little or no longer than the previous ones, but each succeeding one becomes more prolonged and more powerful, until about the fifth or sixth, when the coil has arrived at its maximum effect in this direction. When the uterine contractions have not previously been longer than five to ten minutes apart, the intervals rapidly become much less, and soon the contractions follow one another with great rapidity. If the intervals at first be of long duration, the current often fails to augment the uterine contractions, and the relief from pain is not so marked.

In three instances the uterine contractions became so incessant and so forcible that the coil had to be discontinued as the perinæum seemed in danger of rupture. These were all primiparæ with rigid perinæums. The length of the uterine contraction varied greatly. In one case it lasted nearly fifteen minutes without the slighest intermission. This was a case of face presentation, and the head began to enter the pelvis at the commencement of the contraction, and this did not cease until the child was born. A good many times the current was stopped, but then immediately the mother literally yelled to have it again from the relief it gave. It is not at all uncommon to find cases where the uterine contractions become so prolonged and violent that it seems advisable to shorten them by turning off the current, as they continue as long as it passes, and this is more especially the case when the maternal soft parts are rigid. Thus by the employment of the coil we have a means at our disposal of intensifying the uterine contractions without the dangers of ergot, so we are able to control them at pleasure. But on the other hand, as I have already said, the coil fails in some cases. I have never been able to find out what cases are likely to fail or the cause of failure. Sometimes when the

good effects are not so marked as usual, the cause has been that the electrodes have slipped from their proper places and perhaps in others—but this is only a surmise—the position for obtaining the greatest benefit may not be the same as in most instances. The best spot in the majority of instances is found by bisecting a line drawn from the umbilicus to the middle of Poupart's ligament on each side. The method for determining these spots was by moving the sponges about over the abdomen until I found the contractions most intense, and as a rule the relief from pain is certainly greater than when any other spot is chosen. In one case the electrode was inserted into the vagina but with no better result, in others one was placed upon the perinæum and the other upon the abdomen with no advantage ; and besides, the electric sensibility of the perinæum is a great drawback to this position being selected, as the patient is pained rather than soothed. The current when used during labour does not prevent the "after-pains," but sometimes they seem to be postponed. I have never used it for their relief, although I should say that most likely it would relieve them. From the powerful contractions under the influence of the coil the placenta is more often than not found in the vagina directly after the child is born, and sometimes it is expelled entirely.

In only three or four cases have I seen any vomiting when once the coil has been applied, and should there previously have been vomiting this is almost immediately checked. The following is a well-marked case :

Mrs. C—, æt. 25, first confinement. From the time she got up in the morning until 11.30 p.m. she had been retching and vomiting and had not been able to keep anything, not even cold water, on her stomach half a minute. When called, I immediately, on account of the vomiting, applied the induced current during her uterine contractions, and all nausea disappeared. She directly was able to take some milk. No return of nausea. Child was born some hours subsequently.

In no case in which the coil has been applied have I met with any mishap to the mother. Of the last 250 cases, that is since I have been accustomed to the use of the instrument, the following is the result:

Deaths to mothers	0
Deaths to children under one week	9

Of these:

Stillborn, decomposed	3
Premature	3
Malformed	1
From placenta prævia	1
Prolonged labour	1

The latter was dead before I applied the coil, as the case belonged to a friend; labour was over in ten minutes from the time the current was administered.

Ruptured perinæum	0
Post-partum hæmorrhage	2
Slight peritonitis	1
Instrumental cases	9

Being 1 in 27.

This is not a true average, as many easy cases had not had the coil applied because I did not see them in time. And one, besides, I was only asked to assist on account of difficulty. These instrumental cases were:

Induced premature labour

Distorted pelvis	1
Slighter distortions	2
Uterine inertia or disparity of size between mother and child	6

In two cases getting up was slightly delayed. One the case of peritonitis, the other that of placenta prævia combined with a cause not connected with labour. In two cases I know there was subinvolution, but cannot say whether there were more. In almost every instance in multiparæ the mothers felt stronger than in their previous confinements.

The best position of the electrodes upon the abdomen has already been mentioned. Generally speaking I have

found it advisable to employ the current only during the uterine contractions on account of the relief it affords, while the strengthening and quickening of the contractions is equally obtained in this way as by the application during the intervals. Besides, a strong current causes more pain during the intervals than during a uterine contraction. But it is hardly ever necessary to employ a stronger current than the patient can just perceive. We must remember that the abdomen is not nearly so sensitive to the current as the fingers, so that a current which is painful to the latter is hardly felt on the former place. Occasionally when there is a long time between the uterine contractions, and it is desired to hasten them, the current may be applied during the intervals, and if so done it ought only to be passed from half to one and a half minutes at a time, leaving off for one or two minutes, because if continuous it does not stimulate the uterus to contract so readily.

In order to obtain the best results from a coil the interruptions must be as quick as possible, as slow intermissions are not nearly as effectual, especially for the mitigation of pain. For this purpose it is best to regulate the hammer until the note given is as high a pitch as the instrument will give without becoming irregular. The number of vibrations ought to be at least 250 per second.

The spongiopiline pads must be kept moist, as if they become dry the current is not so pleasant nor so effectual. It is not necessary for salt to be added to the water, as this will cause the metal to corrode quickly, and as it is rarely wanted to utilise the whole power of the instrument. The current I always administer is the secondary. In my instruments the indirect current is not cut off, so there is an alternating current, although, of course, the indirect is much less powerful than the direct. In many instruments the former is short circuited through the battery and they give true positive and negative poles. Especially in the latter case, but also with all instruments it is beneficial occasionally to reverse the direction of the current, not

only because it is more pleasant to the patient, as the negative pole is apt to become painful, but also because the coil then exerts greater effects, and this is very manifest if at any time the current seems to be losing its power.

In conclusion, I earnestly hope that you will give the induced current a good trial and not condemn it upon one or two failures; because there are little details only to be learnt by practice which make the difference between success and non-success, and I hope that you will obtain the same good results I have. I have tried to place the whole subject before you with as little praise as possible, and have quoted everything against the treatment I can. I have omitted any account of very quick labours (which are constantly occurring by the aid of the current even when the previous ones have been tedious) merely because I do not wish to arouse too great expectations; but at the same time I must again repeat, the more I use the current the more strong is my belief in it.

As I have been requested to supply a few more facts I think, perhaps, that it may be satisfactory to give a short account of the last six cases. Of these there happen to be two who always have tedious labours (Nos. 1 and 2), and another (No. 4) vomited once after the coil was employed, the first case of vomiting I have seen for more than a year, so this set is peculiarly unfavorable.

No. 7 is a case which illustrates the power of the induced current to prevent post-partum hæmorrhage. It is the most striking instance I have seen, although I have had several similar only less marked.

In nearly every instance out of a large number of series of pulse-tracings taken during health while the induced current was passing, no matter where the electrodes were placed, there was almost always a falling in the rate, generally from about ten to fifteen beats per minute. In every case the alteration depended upon the lengthening of the diastole, while the systole remains unaltered.

In order to satisfy myself that the induced current does prevent the voluntary muscles from becoming fatigued I made in the year 1879 some experiments similar to those undertaken by Dr. V. Poore, only employing the induced current instead of the constant.

A. held out a weight in his left hand and became tired in 60 seconds. The induced current was then applied to the painful muscles and he could hold the weight out for an extra 90 seconds. The current was being passed the whole time. With his right hand he could hold it out 60 seconds and when the coil was being applied he could continue 115 seconds longer.

B. could hold out a heavier weight (being a stronger man) and became tired in 60 seconds without the current, but directly the current was used he continued to hold it out for 90 seconds and then stopped, although he could have held it out longer. This was the same both right and left.

In order to determine whether the muscular power was increased during the application of the induced current I asked a friend to pull against a spring balance, first without and then whilst the current was passing.

Exp. 1.—Keeping his upper arm still and raising his forearm he was able to exert a force of 48 lbs. The current was then applied, one electrode being placed over the biceps and the other over the supinator longus. He was then able to pull 60 lbs.

Exp. 2.—Using all the muscles of the arm and shoulder he could pull 102 lbs. The current was then applied, the electrodes being similarly placed, and the force then exerted was 108 lbs.

Exp. 3.—Pulling exactly as in the last experiment he continued until fatigued, and when he could only pull about 80 lbs., the force still diminishing, the current was applied in the same manner, and then immediately he could exert a force of 108 lbs.

The difference between the augmentation of 16 lbs. in Experiment 1 and only 6 lbs. in Experiment 2 is accounted

for by the fact that in the latter only a few of the muscles employed came under the influence of the current.

Another gentleman was also kind enough to allow himself to be experimented upon with a similar result.

Exp. 4.—Pulling without the current 120 lbs. Pulling with current electrodes upon biceps and supinator longus respectively 130 lbs.

Exp. 5.—Pulling without the current 118 lbs. Pulling with the current, only this was made stronger and similarly applied, 132 lbs.

Exp. 6.—He pulled until tired and gradually less strongly when the current was applied and the index of the balance rose immediately. He said that directly the current was applied there seemed to be fresh force infused into the muscles.

The application of these experiments is so plain that I think no comment is necessary.

No. 1.—Mrs. F—, sixth confinement. I saw her first at about 3 a.m. and found the os uteri almost fully dilated. The coil was applied and the child was born in about a quarter of an hour. Placenta remained in the uterus, but was expelled into the vagina upon applying the current to the uterus for about half a minute.

This was by far the quickest labour, as it commenced about ten the previous evening and this was the only easy one.

With her first two children she had very long labours; with the third, after the os was fully dilated, labour continued about one and a half hours. The pains were very violent, but the coil relieved the sensation of pain to such an extent that with the fourth and fifth labours she sent almost as soon as she felt any pains on account of the relief the coil afforded. In these two labours the children were not born until about one hour after the os was fully dilated. The children when born had very elongated heads.

No. 2.—Mrs. M—, sixth confinement. The first was very tedious and required the use of the forceps. The

second and third were also tedious. The fourth time was very good. The coil was applied. The fifth time was much longer, being an hour after the os was dilated. The presentation was head face anterior (third position). The sixth was good. The coil was applied when the os was about three quarters dilated and the labour completed in less than half an hour.

No. 3.—Mrs. N—, first confinement. Labour commenced during the night, and at about 3 p.m. the os was nearly dilated. She was calling out during each pain, and tossing about on the bed. The coil was applied. The pains then became more frequent until at the last almost incessant. The head of the child in two or three pains came down upon the perinæum, which, however, was rigid, but as the pains were very strong, the child was born in about twenty minutes from the time the coil was first applied. The placenta was expelled by the current being applied to the uterus (externally) after the child was separated.

Directly the current was applied the mother never made a sound and kept quite quiet until all was over. She said that the pains were quite bearable during the passage of the current, and if not turned on sufficiently quickly she asked for it. Several times I left off the current because of the great intensity of the uterine action, as I was afraid there might have been rupture of the perinæum.

No. 4.—Mrs. T—, third confinement. She sent for me about 10 p.m., and on making a vaginal examination I found the os about the size of a shilling. Pains about every five minutes. As it seemed likely to be a favorable case I applied at once the coil. The uterine contractions came on fast while the pain was lessened. She was sick once after the application of the coil. The child was born in half an hour, and the same pain which expelled the child expelled the placenta. This was the third pain after the full dilatation of the os.

Previous confinements good.

No. 5.—Mrs. W—, first confinement. In the morning,

about six o'clock, she complained of having pains about every fifteen minutes during the night. The os would not admit the finger. About 4 p.m. the os was about three quarters dilated, and the pains about every five minutes. She was calling out with every pain. The coil was applied and labour was completed in a little over half an hour. She stopped all calling out until the child was passing through the vulva. She volunteered the statement that the coil gave her great relief. Placenta came away easily.

No. 6.—Mrs. S—, third child. A visit was paid at half-past six. She had been in pain for two hours, but upon making a vaginal examination I could not tell whether labour had commenced.

At half-past nine she sent again. Pains about every five minutes. The os was about the size of a florin, and rather rigid. She had been vomiting just before I entered. She was calling out during each pain. The coil was immediately applied and subsequently she did not make any noise, with the exception of the grunting expiratory sounds during the pains. She had no more vomiting. The child was born in a little under three quarters of an hour from the first application of the coil. The child was expelled by the pain which followed the one that fully dilated the os. The placenta was in the vagina near the external orifice.

This woman had a very long labour with her first child, the medical man being with her nine hours. With the second she had an average time. She said she was relieved a good deal by the current.

No. 7.—Mrs. W—, sixth confinement. In her previous confinements she had average times, but after each one there was severe flooding, in two (or three ?) so great as to be almost fatal. These took place abroad.

A short time previous to her confinement I found her in a very weak state, suffering a good deal from nausea and vomiting. She had not been very long in England.

When I first saw her in her labour I found the os about three quarters dilated. The coil was applied immediately,

and the infant was born in a quarter of an hour. There was not the slightest sign of post-partum hæmorrhage, and the lochia remained quite natural. She was able to leave her bed at the usual time.

The PRESIDENT said he was certain he was but expressing the general feeling of the Society in thanking Dr. Kilner for his interesting and suggestive paper. To obtain an agent which, while augmenting uterine action, would at the same time lessen the pain of parturition, appeared a proposal almost too good to be realised. His own acquaintance with the application of the induced current to obstetrics was confined to its effect in the induction of premature labour, and to its use as an excitor of uterine action in cases of post-partum hæmorrhage. Of its value in normal labour, or labour slightly inert, he had had as yet no experience. But so surprising were Dr. Kilner's details, and so satisfactory his experience, that he could not but hope we were on the threshold of an important advance in the management of natural labour, an advance for which parturient women would be very sincerely grateful.

Dr. PLAYFAIR said that nothing could be more interesting than the subject of Dr. Kilner's paper. He had formerly read a communication from him on this matter in one of the medical periodicals, and for some considerable time had carried a battery with him to every labour he attended, with the view of giving the effects of electricity a fair trial. He was in no way prejudiced against it; on the contrary he had looked forward rather hopefully to finding in this a valuable aid to our obstetric resources. Unfortunately he had not found that his results justified his expectations. It might very well be that his failure was partly due to his own want of experience in electric manipulations, but he was sure that Dr. Kilner himself would be the first to admit that unless electricity could be worked without any specially expert skill, such as he himself possessed, it was never likely to come into very general use. To test it fairly it must be compared with other resources at our disposal. Dr. Kilner divided its effects into two heads:—1. As a means of relieving the suffering of childbirth. 2. As a means of increasing the force of the uterine contractions, in other words, as an oxytocic. For the first indication his experiments had convinced him that there was some justification, not perhaps to the extent Dr. Kilner thought, who had obviously a parent's enthusiasm for his offspring, since he seems to have used electricity indiscriminately in 300 consecutive cases, but still he had found that the current relieved suffering. Relatively to anæsthetics, however, including under this head the use of chloral, as well as the administration

of ether in the second stage, its effects were quite insignificant. Now, as in his judgment anæsthetics could be given quite safely, and with no bad effects whatever when properly administered, he was positive that electricity, although useful perhaps in a secondary degree, could never occupy the same platform, for not only was its power of relieving pain quite insignificant in comparison to that of anæsthetics, but there was something complex and alarming in the use of the battery at the bedside, which would militate strongly against its general adoption, and which would in itself be prejudicial to many women. 2nd. As an oxytocic he was quite unable to give a favorable report, for he had been quite unable to satisfy himself of its value in that respect. Dr. Kilner only spoke of it as comparable to ergot, or as supplementary to it. Now, he (Dr. Playfair) had long held that ergot, although of great value as a means of promoting tonic uterine contraction after the birth of a child, was a drug which should never be used as a means of increasing uterine contractions before delivery, since its tendency was to produce a continuous uterine contraction which was very dangerous to the child. For this purpose the only drug he employed was quinine, but much superior to that was carefully-applied uterine pressure, the use of which Dr. Kilner, in common with many practitioners, seemed entirely to ignore. It was curious how little used this valuable agency was for increasing uterine energy, and yet there is nothing comparable to it in efficacy, and it was an agent the effects of which the practitioner might regulate at will with the greatest delicacy. A curious proof of its value was that it held an important place in the obstetric customs of all primitive peoples, often no doubt roughly and injudiciously used, but still its constant employment clearly pointed to its value. Just as he felt bound to consider the current quite of secondary value to anæsthetics in relieving pain, so he was constrained to place it on a far lower level than judiciously-applied uterine pressure as a means of increasing the force and effect of the pains. While obliged thus to criticise and differ from Dr. Kilner's conclusions, he felt sure that the Society would agree with him in expressing his obligation to him for the time and trouble he had devoted to this important practical question.

Dr. Walter (Manchester) mentioned that he had for upwards of seven years used the electrical current in cases of inertia of the uterus following the expulsion of the placenta, when the ordinary means of treatment failed in securing a permanent contraction, and that in some instances he found it superior to ergotine, frictions, and internal manipulations of the uterus with the hand. He also stated that in some of the worse cases of post-partum hæmorrhage the electrical current was of the greatest assistance in checking the hæmorrhage and doing away with the necessity of resorting to the local application of strong styptics.

So firmly impressed was he with the efficacy of the current in the cases he alluded to that he considered it most advisable for medical men to make the rule of carrying some portable form of battery in their obstetric bags. The battery Dr. Walter found most useful was a sulphate of mercury battery of Gaiffé's, which could easily be carried in the pocket, or a small magneto-electric apparatus such as the one made for him by Messrs. Weiss and Sons, which had the great advantage of never being out of order when required. In using the electric current Dr. Walter noticed that the effects were not nearly so good when each electrode was placed in the abdominal walls over the sides of the uterus, as when one electrode was placed over the sacrum or fundus uteri, whilst the other was applied to the interior of the uterus, and for this purpose he strongly recommended the uterine electrode made for him by Weiss, which could unscrew in three pieces so as to fit in either of the batteries he had mentioned; this electrode was made with two different sized knobs, the smaller knob to serve in cases of abortion. Dr. Walter also referred to the lecture given at the Manchester and Salford Lying-in Hospital in 1844 by his late colleague, Dr. Radford, which was shortly afterwards published in the 'Provincial Medical and Surgical Journal,' and in which was strongly advocated the use of the current, not only in tedious labours from inertia of the uterus and accidental hæmorrhages, but also in those few very extreme cases of placenta prævia, where the patient appeared unable to withstand the shock of delivery until some time had been allowed her to rally from the onset of the hæmorrhage. In the same lecture Dr. Radford also suggested this particular treatment as a means for inducing premature labour.

Dr. Horrocks observed that if it could be conclusively proved that electricity was able to produce healthy uterine contractions, apparatus sufficiently handy would not be long in forthcoming. *A priori* one would have thought galvanism (continuous current) the best form of electricity for inducing uterine contractions, but of the three kinds of electrical force, static, galvanic, and faradic, the two former had been abandoned by all who had tried them. The faradic or induced current is said to act upon muscle indirectly through the nerve supply, and that muscle itself is not excitable by faradism except through the nerves. Hence some have tried to faradise the uterine nerve plexuses, and others the hypothetical reflex centre, for parturition. The method of application is exceedingly important, and it should always be stated what kind of rheophores and electrodes are used, where and how applied, whether stationary or mobile. Without very expensive apparatus it is impossible to measure the strength of faradic currents, and therefore one must be content with asking if the current employed was weak, medium, or strong. Others who had tried faradism had found that it gave the patients pain, and

it was difficult to see how Dr. Kilner had given no pain if he used a sufficiently strong current. When faradism was applied to arteries it caused first great contraction, which was followed after a time by dilatation, and thus arterial tension was diminished. Supposing faradism will act on the uterus, might it not in a similar way cause injurious contractions, to be followed later by dangerous dilatation? Had all the children been born alive? Had any been in a state of asphyxia requiring artificial respiration? and had post-partum hæmorrhage followed in any of the cases? It was very important, however, to be quite clear as to the actual power faradism had over the uterus. Could it, for instance, bring on premature labour? This had been tried by Barnes, Tachard, Saint Germain, and others, and had invariably failed except when aided by artificial rupture of the membranes.

Dr. Barnes had long felt great interest in the subject which had been so well illustrated by Dr. Kilner. Following Dr. Radford he had made many careful clinical experiments with faradism many years ago. He found that uterine contractions could be initiated as well as intensified by the application. On one occasion, when applying the current to induce labour, the bladder was excited to contract, much to the annoyance of the patient. He had, although always retaining his conviction of the usefulness of the agent, dropped resort to it, partly on account of the pain it sometimes induced, and partly on account of the inconvenience of carrying about a battery. Dr. Kilner found that pain is lessened, and the battery he carries is so small and convenient that all difficulty seemed removed. He was especially struck with the evidence Dr. Kilner adduced to show the power of the current in lowering arterial tension in a few seconds, and he had an opportunity of witnessing this in a patient of his own to whom he had called Dr. Kilner's aid to treat a long-standing paralysis of the uterus. He felt confident that by exercising this influence over arterial tension, a most effective way might be secured in relieving the distressing vomiting and other cognate disorders of pregnancy, as well as in controlling other disorders of labour and puerpery.

Dr. Routh felt much indebted to Dr. Kilner for his very novel and valuable paper. He could not, however, speak as to this method in midwifery cases, as he had never used it in these, but he wished to confirm by analogous observations Dr. Kilner's remarks on the effects of electricity on pathological as opposed to physiological pains. In many cases of migraine or sick headache the electrical current often entirely removed the pathological pain. So also in lumbago, where a man would come in his study, bent, and walking as a man of advanced years, and after the use of the battery he would walk out erect as a soldier. But the amount of physiological pain induced varied, and with the same battery; sometimes producing intense pain, sometimes

none, but with the same relief to the pathological pain, possibly because sometimes superficial nerves were touched which escaped another time, or possibly because due to some peculiar condition of the patient. 2. Then as to its effects in inducing contractions of the uterus. He had sometimes completely succeeded by its frequent application to cause fibroid tumour of the uterus to disappear. The effect produced was doubtless analogous to that produced by large doses of ergot, causing the tumour to be starved away. But the same result had occasionally followed its application to breast tumours, when the contraction, if any, was more limited. It must then have some additional power. 3. He could also confirm the statement that it *strengthened* patients, and removed the sense of exhaustion or fatigue in special muscles. In the case of singers and patients with fibroids the remark was often volunteered after the use of the battery, that they felt they were stronger. He thus foresaw its value in many tedious labours. 4. The force of the objection made by Dr. Playfair as to the inconvenience of bringing a largish battery in labour cases was reduced to a minimum when the very small, handy, and pocket instrument of Dr. Kilner was examined, and after all, many patients in labour could be credited with having sufficient confidence in their medical attendant to do as they were advised.

Dr. Murray thought that if the electric current had such power as described, the possibility of rupture of the uterus under its influence should not be overlooked. He had used it for hæmorrhage, but considered its value was very doubtful as compared to other means.

Dr. Kilner.—In answer to Dr. Playfair's objection that the induced current is not so good for the relief of pain as an anæsthetic, I distinctly stated that it rarely affords a complete freedom from pain, but that it mitigates it so much that women endure their labour without desire for an anæsthetic. The current has this decided advantage over an anæsthetic, that it never produces the after-effect of vomiting or nausea so common with the latter, and at the same time from the perfect contraction of the uterus, and from the lowering of the arterial tension it frees the woman from the liability to post-partum hæmorrhage. It was also contended that pressure upon the uterus would when necessary hasten labour, but in my opinion the current is far preferable, because the current will produce the same result and at the same time relieve the patient, while pressure must cause distress. One gentleman said he liked the magneto-electrical machine better than the induction coil. Now, the currents obtained from both these instruments are similar, only with the magneto-electric it is more difficult to keep perfectly regular intermissions of current. The great difference upon the patient consists in the construction of a given instrument as

regards the length and thickness of wire and the rate of the interruption. A gentleman said that the induced current, when applied directly to an artery, causes contraction. This is a physiological experiment which does not apply to the effect of the current upon a human being. I have taken from fifty to a hundred series of tracings whilst the current was passing, and in every one there was a general lowering of the arterial tension, no matter what the position of the electrodes, the quickest alteration being in ten seconds. I related some experiments, showing that the current does relieve the fatigue of the muscles of the arm when they are tired by holding out a weight, because when the patient is unable to continue from fatigue he will nevertheless be able to hold out the weight for some time longer if the current be applied to the painful muscles. Again, there were other experiments showing that when a person pulls against a spring balance he is able to exert greater force with the aid of the current than he can without. These experiments illustrate certain effects of the induced current during labour. As regards producing death of the children, I have only seen two born dead who have not exhibited signs of decomposition, in those cases of confinements in which the coil was employed. One of these was a case of placenta prævia, and the other a tedious case of labour which I did not see until a few minutes before the child was born. In both these it was suspected that the children were dead. I have never seen a case of rupture of the uterus.

MAY 7TH, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—48 Fellows and 8 visitors.

Robert James W. Oswald, L.R.C.P. Ed., and William T. D. Caldwell, M.D., were admitted Fellows of the Society.

Francis Henry Hawkins, M.B. Edin., was declared admitted.

The following gentlemen were elected Fellows of the Society :—Stephen Herbert Appleford, L.R.C.P. Lond. ; Thomas H. Appleton, M.R.C.S. ; William Job Collins, M.D. ; John Hopkins, M.R.C.S. ; Jamieson Boyd Hurry, M.B. Cantab. ; James Inglis, L.R.C.P. Ed. (Aberdeen) ; William Ward Leadam, M.D. ; George Francis McCarthy, L.K.Q.C.P. ; Edward Charles Maynard, L.R.C.P. (Folkestone) ; Walter Roughton, L.R.C.P. Lond. (New Barnet) ; Charles John Stansby, M.D. (Bermuda) ; Edward W. F. Stiven, M.D. (Harrow-on-the-Hill) ; George Hy. W. Thomas, M.R.C.S. ; William Travers, M.D. ; and Alexander Waugh, L.R.C.P. Lond. (Midsomer-Norton).

The PRESIDENT reported to the meeting that the following addresses had been sent, in accordance with the vote at the last meeting of the Society, to H.M. the Queen and H.R.H. the Duchess of Albany :

To Her Most Gracious Majesty the Queen.

May it please your Majesty—

We, the President, Council, and Fellows of the Obstetrical Society of London, desire with deep respect to offer your Majesty, on the occasion of the death of your illustrious son, H.R.H. the Duke of Albany, the assurance of our most profound sympathy. We recognise in the Prince, whose loss we deplore, one whose large abilities, cultivated by a comprehensive education, pointed him out as the future patron of science in this country; a position for which he was further qualified by the intelligent personal sympathy he consistently displayed with those departments of science and art in which the medical profession is specially interested. In the Prince's death we therefore feel we have sustained a double loss; not only that of a member of the Royal House to which we are loyally attached, but also that of a scholar and scientist whose interests were greatly our own. That your Majesty's health may not suffer from this sudden and great bereavement, and that your Majesty's life may be long preserved, is the sincere prayer of the Fellows of this, the largest of the London Medical Societies.

To H.R.H. the Duchess of Albany.

May it please your Royal Highness—

We, the President, Council, and Fellows of the Obstetrical Society of London, desire very respectfully to offer to your Royal Highness our deepest sympathy in the great loss you have so suddenly sustained in the death of your illustrious husband, the Duke of Albany. To the medical profession the Duke was especially endeared, both by the grace of his character and the great interest he took in scientific and literary work; and we all sincerely hoped he would have been spared for many years to the great advantage of science, literature, and art. We earnestly trust that the consideration of the great work

the Duke had accomplished in so short a time, and the universal sorrow felt at his early death, may be some consolation to your Royal Highness in the midst of your overwhelming grief.

DECIDUOUS MEMBRANE OF PREGNANCY, PROBABLY FROM THE UNIMPREGNATED HALF OF A DOUBLE UTERUS.

Dr. Cleveland exhibited for the third time a fleshy or deciduous substance, that had been voided by the same patient, a short time after delivery. Reference to the former occasions would be found in the Society's 'Transactions,' vol. xxiii, pp. 132 and 181, and vol. xxiv, p. 297.

The present specimen differed only in appearance from the former ones in being more irregular and shapeless or less like a cast of the interior of the uterus. The labour, which took place in March, was within a fortnight of term, and was tedious but natural. The placenta was thrown into the upper part of the vagina and easily removed. It was carefully examined and found entire. Hæmorrhage moderate; uterus well contracted and of normal size; there were no after-pains and the discharge was moderate.

On the third day, or sixty-eight hours after labour, the patient was complaining, at the time of Dr. Cleveland's visit, of uneasiness and pain in the back. She felt sure she was going to pass, as she expressed it, another substance, and in the course of two or three hours the specimen now shown was extruded, and from that time all the symptoms ceased. The expulsion was attended with no hæmorrhage. Dr. Cleveland wished to add the following facts, which could be taken for as much as they were worth:

The patient had no knowledge of having expelled any substance after delivery in her early pregnancies. She stated that eight years ago she had an adherent placenta,

and suffered great pain while it was being "scraped away from her."

In June, 1883, while in the country, she aborted at three months, but a week before the fœtus was expelled she passed a substance and concluded all was over.

It was to be regretted that the patient could not be prevailed on to submit to a careful examination since her confinement.

Drs. Galabin and John Williams, with Dr. Cleveland, were appointed a committee to examine and report upon the specimens.

ANGIOMA OF LABIUM.

Dr. Matthews Duncan had removed lately from the labium of a woman long married a small-necked tumour of the size of a boy's marble. Of it Dr. Thin had made sections, which he exhibited, demonstrating the tumour to be an angioma.

RUPTURED SECONDARY CYST IN THE WALL OF A MULTILOCULAR OVARIAN TUMOUR.

Mr. Alban Doran said that the development of a secondary cyst in the main wall of a multilocular tumour of the ovary was a frequent cause of rupture, as the wall was then, of necessity, much thinned. As a rule, however, secondary cysts tended to burst internally. In this specimen, a secondary cyst had protruded against the outer part of the main wall in which it had originated, causing an unusual degree of distension without rupture; on the other hand, it had burst internally.

The outer segment of the secondary cyst projected from the main wall of the tumour, forming a conspicuous thin-walled digital protrusion. On the inner side of the main wall the protrusion could be seen to communicate with the cavity of the tumour by a circular orifice, over an inch in diameter, surrounded by a sharp fibrous ring of the kind usually seen at the seat of rupture of a secondary cyst when it bursts inwards.

The tumour had been removed by Dr. Bantock in December, 1883, from a girl æt. 21; its main wall contained a large number of secondary cysts, and it had yielded posteriorly at a point where a secondary cyst had greatly thinned its walls. The peritoneal cavity was full of ovarian fluid. The patient made a good recovery.

RUPTURE OF THE UTERUS AND VAGINA.

Dr. Horrocks showed a specimen of rupture of the uterus and vagina. The rupture was longitudinal and extended from just above the cervix downwards and inclining slightly to the left, through the cervix uteri, along the vaginal wall near the left side to within two inches of the vaginal orifice.

FIBROID TUMOURS OF THE UTERUS.

Dr. Bantock exhibited a series of specimens of fibroid tumour of the uterus illustrating the different varieties, viz. the intra-uterine, intra-mural, and the subperitoneal or pediculated.

The first was shown chiefly for the sake of contrast with the others. It was a small fibroid, as large as a hen's egg, removed on April 21st from a single woman, æt. 34, who had for two or three years suffered from

severe menorrhagia. It was sessile on the left side of the uterus and extended from the internal os to the fundus. The separation was effected by the finger, and after the separation was completed, it was very difficult to deliver the tumour through the internal os. The patient returned home on the ninth day quite well.

The next specimen, the first of a series of three removed by supra-vaginal hysterectomy and weighing four pounds, was obtained on March 6th from a single woman, æt. 42, who had been bleeding continuously for twelve months, and was in a very anæmic state. The chief peculiarity of the case consisted in the relations of the tumour on the right side, where it opened up the broad ligament, carrying the cæcum half way up the side of the mass. It would have been very easy to remove the left ovary and tube, but the right ovary was seated on the top of the tumour and so flattened out that its removal would have been very difficult. It appeared to him that the removal of the appendages under these circumstances would, at best, be a perfectly useless proceeding, and he felt compelled to endeavour to remove the mass. He therefore applied a ligature to the ovarian vessels on the right side from an inch and a half to two inches from the cæcum, divided the peritoneum half way round the tumour, then drew it back until the cæcum was at its proper level, and applying the loop of the serre-nœud he completed the enucleation, securing a good pedicle at the level of the internal os. If the large size of the uterine cavity were observed it would readily be understood how this patient menstruated so excessively when were seen the numerous fibroids, of all sizes, which were situated in the uterine walls, around the cavity. In fact, the mass was a regular colony of fibroids.

The next specimen was a very interesting one, the nature of which would be better understood and seen by a coloured drawing (exhibited). The patient was single, æt. 32. The specimen consisted of a large mass measuring twelve inches in length by about six in breadth

at its widest part, a smaller globular mass about six inches in diameter, and between the two the enlarged uterus. The larger mass was extensively adherent to the omentum, the cæcum, and vermiform appendix, and to the mesentery, close in front of the promontory of the sacrum, and there was a large and vascular adhesion to the left abdominal wall, as thick as an ordinary ovarian pedicle, and requiring ligature in the same way. He was not prepared for what the operation revealed, and when, after turning out the tumours, he came to apply the serre-nœud, he was not a little surprised on cutting through the uterus, first by a gush of fluid, and then by the appearance of a small fœtus of from three to four months. The fœtus was evidently dead. The patient had come under his notice about two years ago. At that time menstruation was excessive, but, whether in consequence of treatment or otherwise, it had lately been quite moderate, and for over three months had been absent. The os was drawn up quite beyond the reach of the fingers. He was therefore deprived of a valuable sign. Last year the patient had almost made up her mind for operation, but at the last moment declined. She was not menstruating at all in excess, and was looking well. About the beginning of April she returned, and it was evident that the tumour had grown very much, and that the patient's health was suffering. She now readily accepted the offer of operation, and this was done on the 10th of April, the uterus, along with its ovaries and tubes, being removed at the level of the internal os. The large tumour contained a cavity of the capacity of about a pint, and it was evident that the smaller one had undergone the same form of degeneration.

The question might be asked whether he would have operated had he known that the patient was pregnant? He certainly should have hesitated, for the tumour did not appear to be adherent. But with such adhesions and such extensive degeneration he thought it must be admitted that he did the right thing.

The last specimen was removed from a married woman, æt. 41. The operation presented no special difficulties, with the exception that the left broad ligament was very short, and it was not easy to get the wire loop below the level of the ovary on that side. The large size of the cavity—which measured six inches and a half—was to be noted, and the enormous thickness of the uterine wall, which was more than an inch thick. The tumour developed in the anterior wall. The menstruation was rather excessive, but not as in the first of this series.

The first patient was now quite well, the second was convalescent, and almost ready to return home, and the third was as well as could be wished.

He had omitted an important feature in the second case, and Dr. Keith told him he had had a similar experience in more than one case of hysterectomy. It was this, that owing to a fæcal accumulation in the lower end of the colon, he nearly lost his patient. On the fifth day she had black vomit for twenty-four hours. He was unable to account for this, looking at the general condition of the patient, but accidentally found that the rectum contained fæcal matter. By a rapid succession of enemas, amounting to the number of at least a dozen, the rectum and colon were cleared and the vomiting forthwith ceased. This was an important clinical fact.

Dr. Edis thought that in some cases of intra-uterine fibroma, where difficulty was experienced in applying the wire of the écraseur, a simple and effective method of removal was by grasping them firmly with suitable forceps and extracting them by combined traction and torsion. Dr. Edis had removed one recently, as large as a fœtal head, where it was found impossible to adjust the wire of the écraseur, by grasping the tumour with a cephalotribe and twisting it off in the manner described. The patient recovered perfectly.

Dr. Heywood Smith said the question opened by Dr. Edis was a very important one, that is how far it was advisable, supposing one could get firm hold of a somewhat sessile intra-uterine fibroid, to attempt its removal by torsion, bearing in mind that there was a serious possibility of tearing through the

uterine wall into the cavity of the peritoneum in cases where the fibroid encroached on the external surface of the uterus.

The PRESIDENT agreed with Dr. Heywood Smith that torsion with or without the cephalotribe in the case of very large intra-uterine fibroids was a proceeding that demanded great caution, and that with anything like extensive attachment of the tumour to the uterine wall, the uterine tissues might easily be endangered. In cases of very large intra-uterine fibroids where difficulty had arisen in their extraction on account of their size, he had himself found removing them in sections by the écraseur a safe and satisfactory proceeding.

STRONG MENTAL EMOTION AFFECTING PREGNANT WOMEN AS A CAUSE OF IDIOCY IN THE OFFSPRING.

By Arthur Mitchell, M.D., LL.D., F.R.S.E.,
COMMISSIONER IN LUNACY FOR SCOTLAND.

(Communicated by Dr. Matthews Duncan.)

Strong mental emotion occurring during pregnancy is frequently assigned by a mother as the cause of her child's idiocy. In the great majority of such cases, however, which have come under my notice, I have been able to satisfy myself that there was no good ground for accepting this as the origin of the calamity. Strong hereditary tendencies, severe and protracted disease in infancy, pressure on the head during difficult or protracted parturition, or some other thing more manifestly adequate as a cause, was found in the child's history, and had a preferential claim to be considered the cause of its imperfection.

I am far, however, from holding that the fœtus will be uninfluenced when a pregnant woman experiences violent mental excitement or deep mental depression—especially if protracted. On the contrary, I have convinced myself that cases do occur in which this accounts for the defect of the offspring; and I see no reason why it should not be regarded as sufficient. That which seriously disturbs the mother's health, which deprives her of sleep, takes away her appetite, interferes with the assimilation of her food, makes the secretions abnormal, and leads to emaciation, can scarcely do this and leave the progress of growth and development in the fœtus to be pursued in a vigorous and normal way. The opposite, indeed, appears to be almost necessarily true; and it is impossible to estimate the measure of the ultimate misfortune which

may arise from even a temporary check to the intra-uterine development of the child, because that development takes place in the healthy state with such extraordinary rapidity as practically to render fœtal life a succession of climacteric periods quickly following each other, when even the temporary negation of favorable conditions may be evidenced eventually in grave results.

Bodily disease affecting the mother during pregnancy may in a like way lead to imperfection in her offspring, and one form of the imperfection may be imbecility. The proper nutrition of the fœtus is interrupted by her bodily dishealth, and something beyond a mere retardation of growth may be the result. It does not appear to me difficult to understand how *misdirection* as well as *arrest* or *delay* may thus be given to fœtal growth. Even if the process of development be soon renewed—under restored conditions of health in the mother—it may be impossible to repair the mischief which has arisen from the check, and which may remain either in a final sense, or may show itself in a false direction given to the whole further growth.

I am inclined to think that, in the majority of cases where the child *in utero* appears to have been injured by deep and prolonged mental emotion affecting the mother, the result is arrived at in the way now indicated. The correctness of this view is made probable by *a priori* reasoning, but it rests here on a minute inquiry into the circumstances of a considerable number of cases coming under observation, in which protracted grief had seriously injured a pregnant woman's bodily health, and in which her child at birth was feeble and small and was soon after recognised to be mentally defective.

I am not prepared, however, to say that in some instances sudden and intense emotion on the part of the mother may not suddenly and permanently injure the fœtus.

It has often been asserted to me with reference to an idiotic child under examination, that in the fœtal state it

had received a "shock" at a time when sudden terror or grief had perturbed its mother, and as a proof of this it was sometimes added that at the time of the mother's alarm or distress the motion of the child became excessive, rapid, abrupt, and jerky, giving the mother pain, and that this excessive motion soon subsided, no motion at all being felt for days after. In considering the account given of such cases, it has appeared to me that the movements described were probably convulsive in their character, and if so it can scarcely be doubted that such disturbances as would produce convulsions might inflict serious and irreparable injury on the delicate nervous system of the fœtus.

We know that sudden mental emotion, whether of the nature of violent excitement, overwhelming grief, or paralysing terror, may directly or indirectly induce miscarriage. Sometimes this effect almost immediately follows the cause. At other times the abortion may not occur for several weeks, and it may then either be the result of an interference with nutrition, or the child may have died soon after having what appeared to be a convulsion, the movements of the fœtus never being felt after the violent mental emotion experienced by the mother, and the child being born decomposed.

If then sudden excitement, grief, or fright affecting the mother may sometimes lead to the death of the child *in utero*, or may so interfere with its circumstances or condition as to lead to its premature birth, it can scarcely be doubted that, in other cases, injuries short of death or abortion may be the result, and that among such injuries imbecility may appear.

I began this paper by stating that in the great majority of cases where fright or grief of the mother, whether protracted or short-lived, was blamed for the idiocy of a child, there was reason for believing that such was not the cause. I shall be speaking correctly, I think, if I describe it as a fashionable thing to attribute this calamity to this cause. A merely trifling emotion if exceptional in

its character is often adduced as sufficient. I have experienced much difficulty in separating the real from the unreal, or the probable from the improbable in this matter; and I am quite unable, even as an approximation, to estimate the extent to which this cause really operates. The following cases, however, serve to illustrate the subject.

Case 1.—A woman, while pregnant, witnessed from the shore the drowning of her husband, a fisherman, during a storm. She was in a deplorable state of terror while watching his danger, and she fainted when the catastrophe came. Long afterwards she remained in feeble health. Her child when born was small and weakly, and turned out an idiot.

Case 2.—A woman, while pregnant, lost three of her children in one week of epidemic fever. Her grief and agitation at the time were excessive—overwhelming—and she continued in a state of deep depression, never quitting her bedroom till she was delivered, several months after the bereavement, being then in a wretched state of bodily health. Her child was an idiot when born, and her next and last child was stillborn.

Case 3.—A woman was in the sixth month of pregnancy, when a great flood occurred which threatened such danger to her and her family that a boat was made fast to the door of her house by which they were to escape if necessary. She and her children were for a short time left alone in the house, and while thus situated a tall man, unknown to her, dripping wet and in apparent agitation, walked into her cottage, sat down by the fireside, and after a few minutes rose abruptly and left, never having spoken. She became most alarmingly terrified, and for several days could not be tranquillised. She sat watching the door for the reappearance of what she regarded as a mysterious visitor, and screamed violently if any movement or sound could be interpreted by her fancy into an indication of his approach. The child's movements *in utero* were observed

to be quick and violent, and she complained of the pain they gave her. It was not, however, born before the full period, and soon after birth it was seen to be idiotic.

Case 4.—When in a state of pregnancy a young woman was plunged into deep and protracted grief by the sudden and distressing death of her husband, a loaded cart having passed over him. She was left in extreme poverty, and to her grief was added anxiety about the maintenance of her children. Her bodily health suffered greatly. Her child, born at the full time some months after the accident, was small at birth and was soon recognised to be defective in mind.

Case 5.—A pregnant woman saw one of her children gored to death by a cow. Her mental disturbance and agitation were excessive, and could not be subdued or controlled. The motions of the fœtus in this case are described as having been so intense as to give the woman and her friends alarm. Abortion was threatened, but did not occur. Her child is now a choreic idiot.

Case 6.—A woman was driving a dog-cart when the horse ran away. The vehicle was upset, and the accident caused the immediate death of the horse. The woman is said to have been physically uninjured, but she continued for a day or two in a state of abject terror from which she could not be roused. She was pregnant at the time, and her child, which was born about the full period, was partially paralysed at birth, and is now a complete idiot. It is possible, of course, that in this case bodily injury may have been inflicted on the mother, though it was not perceived. The mental emotion, however, was certainly of a very unusual character, and it was the belief of the woman herself and of her friends that this accounted for the condition of her child.

In addition to the foregoing cases, my notes furnish other twenty-two more or less like them. I am not of opinion, however, that in all of these twenty-eight cases,

or even in the majority of them, the idiocy was properly attributable to the strong mental distress or agitation of the mother. I state the fact merely to show the whole number of cases in which something of this nature was told to me, that was sufficiently decided in its character to make me deem it worth the noting. The number would no doubt have been much larger if I had recorded every case in which the mother assigned fright or grief during pregnancy as the cause of her child's idiocy. It would, indeed, have formed a large percentage of all the cases inquired into, if I had admitted those fanciful cases in which the condition of the idiot or imbecile was traced to the pregnant mother's alarm, agitation, or strong mental impression at such things as seeing a grimacing idiot, or looking at the picture of a monstrosity, or seeing an ape, or hearing an idiot jabber, or reading the account of a startling deformity. Into many cases of this kind I have made a painstaking inquiry, and I have never met with one in which I thought there was any good ground for concluding that between such things and the idiocy of the offspring there was the relation of cause and effect. The narration of such cases would prove full of puerilities and marvels, and it might perhaps amuse, but in my opinion it certainly would not profit. I have therefore excluded them, believing that they are not entitled to serious consideration.

The illustrative cases given in this paper are drawn from 443 cases of idiocy or imbecility consecutively examined, but many of the general opinions which I have expressed are the outcome of all that has passed under notice in the careful examination of more than 1500 imbeciles and idiots.

The PRESIDENT was sure the Society would authorise him to forward to Dr. Mitchell their thanks for his interesting and suggestive paper. He gathered from the paper that what influence mental emotion during gestation had upon the production of idiocy was thought by Dr. Mitchell to be chiefly due to its effect upon the general health of the mother, rather than to any directly transmitted influence upon the fœtus. It was a subject,

however, on which the Society would especially welcome the experience of those who had practised largely among children, as in the case of Dr. West, who he was very pleased to see present, and who was one of the most eminent authorities on the maladies of infancy, and of those who, like Dr. Fletcher Beach, had given especial attention to the study of mental diseases.

Dr. West, after thanking the President for his kindly words of welcome, and his colleagues for their friendly greeting, expressed regret at his inability to give a decided opinion with reference to the alleged influence of mental depression and mental distress during pregnancy in inducing idiocy in the infant. The collection of cases in which a child was born idiotic after the mother had suffered mental distress during pregnancy, could never be conclusive unless controlled by a similar collection of cases, if such there were, and he believed them to be a large majority, in which infants were born with perfect intellectual faculties notwithstanding that their mother's pregnancy had been a time of grievous mental suffering and distress. At present he could return to the question only the Scotch verdict of "Non Proven." He should, however, be very glad to hear what from his wide experience his friend Dr. Fletcher Beach had to say on the subject.

Dr. Fletcher Beach remarked that Dr. Mitchell's paper was an exceedingly interesting one, coming as it did from such an authority as a Scotch Commissioner in Lunacy. There was no doubt that mothers were too apt to put down very slight matters as causes of idiocy, but at the same time trouble, worry, and anxiety during pregnancy did play an important part in the production of that affection. According to statistics which he had been able to obtain in the Darenth Asylum, fright and the causes above mentioned accounted for about one tenth of the cases where histories could be obtained. In many of these cases, however, there was also a history of intemperance, which of itself was often a cause of worry and anxiety to the mother; and one could easily see why it should be so, for, in addition to ill-usage by the husband, one piece of furniture after another had to be sold, and the mother was imperfectly fed just at the time when she should be under the best hygienic conditions. It could not be doubted that conditions of life such as these must play some part in the production of idiocy. Then, again, in a large number of cases there was a history of insanity, imbecility, epilepsy, or paralysis in the parents, so that there were often mental emotion, intemperance, and hereditary predisposition combined, causing the disease. A remark which Dr. West had made was very important, viz. that it would be interesting to find out the number of cases where mental emotion during pregnancy did *not* cause idiocy. This could not be found out by superintendents of asylums, but general practitioners could throw considerable

light on the matter. Then by analysing the cases where mental emotion did or did not produce idiocy, we should be able to determine more accurately whether such a cause would be likely to produce the disease.

Dr. Cleveland agreed with Dr. West that the verdict at present must be "Not Proven." But he rose to relate the history of a family, as bearing on this subject, with which he had been acquainted thirty years. There had been six children born, three of whom were idiots (and one of them, the eldest, a female, microcephalic, aged fifty-two, was living at the present time), and three were possessed of fully ordinary intelligence. The alternate children were idiots. The father was a man formerly in the medical profession, but had left it and acquired a handsome competency as a financier. He died at the age of eighty from chronic asthma. He was always regarded as a shrewd man of business. The mother, who is still living, over eighty, has certainly a family history of insanity, but has never herself evinced any decided mental aberration. Dr. Cleveland said he had asked himself the question, Did three of the children come from one ovary and three from the other?

Dr. Aveling said anything from the pen of Dr. Arthur Mitchell must be welcome to the Society, for it was well known what a careful observer he was. It would have been a valuable addition to his paper if it had been shown that there were no hereditary or consanguineous causes of idiocy in the illustrative cases given.

Dr. Matthews Duncan thought it had not been observed that Dr. Mitchell did not propose to prove his thesis; he only said he had convinced himself of the truth of it, and he (Dr. Matthews Duncan) thought he had made it highly probable that depressing emotions in pregnancy might cause idiocy or imbecility in the offspring. Slight causes favoured this morbidness of product, and to their demonstration Dr. Mitchell had contributed much, showing the influence of age of the mother, the number of her pregnancies, and of twinning. Ancell had shown that injurious or favorable influence of the number of the mother's pregnancy extended over the whole life of the children into adult age, influencing the rate of their mortality. If such apparently slight causes had such grave effects he thought it not unreasonable to believe in the injurious influence of depressing emotions of mothers in producing idiocy and imbecility of children.

Dr. Heywood Smith said it would add greatly to the value of the paper if the time of utero-gestation could be ascertained at which the mother received the mental shock referred to in each case. He had remarked in cases of physical deformity that the mental impression to which the mother ascribed the mischief usually happened between the third and fourth months.

CASE OF EXTRA-UTERINE GESTATION—DELIVERY OF LIVING CHILD PER VAGINAM—REMOVAL OF PLACENTA—RECOVERY.

By J. H. Mathieson, St. Mary's, Ontario.

(Communicated by Dr. McCallum,
Professor of Midwifery M'Gill University; Physician to the General Hospital, Montreal.)

Mrs. D—, æt. 30, medium size, dark complexion, mother of five children, all living, consulted me March 4th, 1881, for a tumour in her left side. She had menstruated regularly till November, 1880; the last two menstrual efforts lasted but a short time, and were accompanied by very little discharge. About that time she began to suffer from pains in the lower abdomen, which were not constant; they increased in severity, and about Christmas, 1880, she first noticed a lump low down in the left side. Had been under medical treatment since January, but without receiving any benefit.

When I examined her I found a tumour occupying the left inguinal region, extending upwards to a level with the umbilicus, and about two inches across the median line to the right side. The umbilicus was considerably retracted. The tumour was firm and elastic, more fluctuating in some places than others, and changed very slightly with change of position. Per vaginam, the os could be felt far up at the right side, and directed to the sacrum. I could not find the fundus by vaginal or abdominal examination. I passed the uterine sound with difficulty; fundus directed to right side and in front of tumour; cavity elongated to three inches and a half; uterus very slightly moveable. There was a fulness in roof of vagina, but I could

not reach any solid part. Patient said she had several times within the past fortnight felt trembling movements in the tumour, "like jelly moving," which were accompanied by nausea. Suffered a good deal of pain, though not always in the same part of the tumour, and manipulation showed some parts to be more tender than others. The tenderness was aggravated by fatigue and exercise, and varied in position and severity from day to day. Dysuria. Bowels irregular. I advised her to wait for a week or two, and to note more carefully the movements. She was ordered a mild laxative, and the use of a comfortably adjusted bandage to support the abdomen.

I examined her again in a fortnight and found the tumour perceptibly enlarged, umbilicus more retracted. The movements of the fœtus were now distinct and attended with pain, nausea, and faintness. The tumour, which could be resolved into a fluid and a solid portion, lay obliquely, its long axis nearly occupying the position of a line drawn from the centre of Poupart's ligament on the right side to the tenth rib on the left (or nearly the position of the fœtus in Dr. J. Braxton Hicks's case 'Obstet. Trans.,' vol. xxii, p. 145). It occupied the same position as at my last examination, filling the hypogastric and left iliac regions, and was enlarging upwards and backwards. The os could barely be reached. An attempt to pass the uterine sound failed from the difficulty in reaching the os. She had had frequent attacks of severe pain, at times like cutting labour pains, at times sharp and burning, while at other times the tumour would become so tender that slight movements of the fœtus would cause great suffering. Both micturition and defæcation were painful, and a feeling of fulness and tension in the lower abdomen compelled her to recline the greater part of the time.

April 12th.—I was called to see her and found her suffering severely. Pulse rapid and bounding, respirations shallow and hurried, abdomen swollen and tender, and the movements of the fœtus cause vomiting and

violent pain, frequently followed by syncope. A hypodermic injection of morphia gr. $\frac{1}{3}$, atropine gr. $\frac{1}{120}$, gave very little relief, and was repeated in an hour, after which she became easier, but continued to suffer from nausea. Turpentine stupes were applied to the abdomen, followed, when the skin became tender, by light bran poultices. I was again sent for in the evening, and found her still suffering from nausea, extremities cold, skin bathed in perspiration, pulse 146, weak, and irregular; temperature $103\frac{3}{5}^{\circ}$; pain was again very severe. I repeated the hypodermic injection (six hours after the last), giving morphia gr. $\frac{1}{2}$, atropine gr. $\frac{1}{100}$, and administered small quantities of brandy and ammonia, which were now retained. After a time she rallied. In two hours I repeated the injection of morphia gr. $\frac{1}{2}$, and in three hours left her asleep.

On April 13th the severe symptoms had subsided. Pulse 130 and steady. Nausea very much relieved. The motions of the fœtus had ceased, and I hoped that the morphia had caused its death; but they returned again in the afternoon, though weaker than formerly. The hypodermic injection was repeated.

On April 14th Dr. Harrison, St. Mary's, saw her with me. He confirmed my diagnosis of extra-uterine pregnancy. The patient was much easier and progressing satisfactorily. On the 23rd she had another attack like the last, but less severe. She was seen by Dr. Irvine, of Kirkton, who had no hesitation in pronouncing it a case of extra-uterine gestation. On May 2nd she had another attack similar to the last, for which similar treatment was employed. Again, about the 18th, she was taken ill, when, in my absence, she was attended by Dr. McKay, St. Mary's. He described her condition as in every way resembling labour with cutting pains.

At a consultation with my *confrères* who had seen her with me, we decided to operate and remove the child if life were threatened from hæmorrhage, otherwise to await developments, and trust to the death of the fœtus taking place.

On June 2nd she had a very violent attack resembling that of April 12th, *et seq.*, excepting that there were tolerably regular pains like the first stage of labour, and occurring independently of any fœtal movements. There was also a red discharge from the vagina. The abdominal tension had now become distressing, and the pressure on the stomach caused her to vomit a part of each meal. She was also becoming greatly emaciated, and the weariness from the protracted suffering, and the gloomy forebodings of the future, depressed her very much. She was scarcely ever free from pain, and required to use morphia constantly. The tumour was still increasing in size, and the tender part, and seat of severest pain, was always in the part of the tumour which appeared at the time to be enlarging most rapidly, and which formed irregular and tender protuberances. Another attack, less severe, occurred on the 13th, with severe labour pains which now assumed a bearing-down character. Yet there was no more fulness in the vagina than before; nor could I discover any increased tension in its roof during a pain. The os was beyond reach of the finger. No discharge from the vagina.

June 28th I was summoned in great haste and arrived about 11 a.m. She had been as usual in the morning, but was taken suddenly ill while using the chamber. She was ghastly pale, surface cold, syncopal attacks followed one another with alarming rapidity, pulse weak and small. Regular, expulsive labour-like pains occurred at intervals of six or seven minutes. The roof of the vagina was filled with a semi-elastic, almost doughy mass, solid on deeper pressure. By external pressure it could be brought within easy reach of the finger. The probabilities were that she could not survive an hour, certainly not at the rate at which she was sinking, and surgical assistance could not be procured within an hour. Her condition for some time past had warned myself and colleagues that, when called, we should be prepared for any emergency. I resolved to operate at once, and in a

few minutes had made the simplest arrangements possible. She positively refused to take chloroform, preferring to suffer the pain and "die in her senses." An assistant made steady pressure on the tumour, fixing it in the cavity of the pelvis. I carried a scalpel, guided by the finger, to the most dependent part in the roof of the vagina, and cautiously made a short incision, partly with the scalpel, partly with the finger-nail, and filled it with the pulp of the finger as it was made. I soon felt through some tissue the solid part of the fœtus. Upon cutting a little deeper a few ounces of blood and clot came away. Using a probe-pointed bistoury, I pressed it steadily against the edges of the wound, enlarging it in the axis of the vagina, till I could get in three fingers, and removed some clotted blood. I then introduced the hand into the vagina, and exploring, found the parts within reach easily distinguishable. Partly with the scalpel, and partly with the finger-nail, I cut through the tissue still overlying the presenting part of the fœtus (presumably the amnion). This was followed by a gush of fluid, semi-opaque, and of a creamy consistency—the Liquor Amnii. The face of the child was presenting. There was no hæmorrhage that I could discover, except the slight oozing from the wound. I carefully enlarged the opening, rectified the position as far as possible, but as the pelvis was capacious I did not spend much time with it. The labour pains were still regular, at intervals of four or five minutes, but weaker, and less expulsive than formerly. The discharge of the clots and fluid relieved her distress, and perhaps the excitement and apprehension aided in rallying her a little. With great difficulty I applied the forceps (Simpson's long). They had not sufficient curve for the position occupied by the fœtal head, the opening was small, and the dread of thrusting them in amongst the bowels, or through some tissue that would produce fatal hæmorrhage, or of seizing a loop of bowel, did not lessen the difficulty. Moderate traction was sufficient to deliver the child. It was asphyxiated, but the ordinary means restored it.

The funis was short, thick, and not twisted, scarcely long enough to allow the limbs of the child to be born before it was cut. As soon as the child was born, I introduced my hand into the cavity whence it was taken. Following the cord to the placenta I could trace its border. It was situated at the posterior and left side of the cavity, its lower border being about two inches from the margin of the incision. The walls of the cavity were irregular, and lined by a friable material that readily broke down under the finger-nail. There was no hæmorrhage. I waited some time till the patient rallied, keeping the hand in the cavity pressed against the placenta, and making pressure with the other hand over the abdomen, and then tried the edge of the placenta, which was adherent to the left side of the abdomen, and found that it could be separated quite readily. I then carried a sponge containing a solution of perchloride of iron into the cavity, and carefully separating a small position of placenta, pressed the sponge against the maternal surface for a few moments ; separating a little more, I again rolled the sponge firmly against the bleeding surface, and thus on, until the placenta was entirely separated. The loss of blood was trifling. More than once during the operation the sponge was removed and resaturated. In less than half an hour I removed most of the clot from the cavity and lightly retouched the surfaces with the styptic, placed firm compresses over the abdomen, and applied the usual bandage.

She was very much exhausted, but more hopeful than for months past. For a long time it was doubtful whether or not she would rally. Mild stimulants and opium were administered ; about midnight she showed signs of improvement, and at sunrise I left her in a gentle sleep. The child, a plump, ruddy boy, weighed 8 pounds 7½ ounces (nurse's weight), and appeared to be born at full term. The placenta consisted of three lobes, two partially attached to one another, the third smaller and separated from the others throughout the greater part of its margin. It was irregular in thickness, lumpy, and had several

yellow patches on the maternal surface. It was destroyed before I had an opportunity of examining it carefully.

29th, 2.30 p.m.—She awakened after sleeping about half an hour this morning. Has vomited several times since, but the stomach is settled now. Pulse 120, very soft, scarcely suffering any pain. Breasts full and tender, has been drawing the milk from them for a fortnight. No hæmorrhage. Passed catheter to allow absolute rest. 10 p.m.—Pulse 115, temp. $100\frac{1}{5}^{\circ}$ F. No change.

30th, a.m.—Pulse 106, temp. 100°. Slept soundly; skin dry; tongue clean. Vomited twice last night, but still retains a moderate amount of nourishment. I removed some clots from the vagina and washed it out with a 2 per cent. solution of carbolic acid. There was some discharge from the cavity. Abdomen tender, not tympanitic. After this the cavity was washed out with a solution of carbolic acid or Condy's fluid every day. The discharge was very abundant and offensive, and continued about six weeks before it stopped completely. The peritonitis increased till about the sixth day and then slowly yielded, though there were occasional rigors, and a few slight intercurrent attacks during the continuance of the discharge. There was nothing unusual occurred during convalescence. The treatment consisted in nourishment, rest, opium, and the free use of antiseptics. Once after washing out the cavity a little bright blood appeared. I added a little Liq. Ferri Perchlor. to the fluid I was injecting, which arrested it almost immediately. Within three months the opening was healed. The troublesome diarrhœa, which began during the last month of pregnancy, continued till the discharge ceased, and was followed by as obstinate constipation. Pain in the side, severe after very little fatigue, continued till the spring of 1883, nearly two years, and was very little relieved by bandages or supports.

August 23rd, 1883.—Mrs. D— called to consult me about another member of the family. She is enjoying excellent health, has no pain in the side, except after

excessive fatigue. Menstruated regularly and normally during the past six months. The child is healthy, and larger at his age than any of her former children, and "is a great deal the smartest of the family."

Was I justified in operating when I did, and in selecting the operation that I performed? If "the end justifies the means," the history of the case answers the question. But our knowledge of the pathology of the condition, and the statistics of such cases clearly point to non-interference, at least till after the death of the fœtus. In this case death seemed to be impending from exhaustion due to the repeated previous attacks of peritonitis and the concealed hæmorrhage that had taken place (?) two hours before I saw her. The labour pains were severe and threatened the rupture of the cyst, if it were not already ruptured; and even if they were alleviated for the present, and the woman survived, my experience with this case and the records of others would lead me to expect their recurrence within a short time, probably before she had recovered from the present illness. She would therefore be in a less favorable condition for an operation then than now. The fulness in the roof of the vagina offered a less serious operation than gastrotomy or laparotomy, which might be rendered necessary if the fœtus should recede from its present position. I could not determine the site of the placenta. Had it intervened between the fœtus and the vaginal wall, or been situated low down in the pelvis, it would have seriously complicated matters, and I should have avoided it, and adopted another operation—probably laparotomy. I concluded that it was higher up. The presenting parts at former examinations consisted of a firm, non-elastic mass, and latterly without much tissue intervening—certainly not enough to have formed the walls of the cyst and vagina, and the placenta. The tumour now was within easier reach than it had yet been, and it was less firm superficially, though the solid part could still be distinguished by deep pressure. I attributed this change to the formation of a clot at that part,

as a result of the recent hæmorrhage, and not to a portion of the placenta. Other dangers likely to arise were considered, as a loop of small intestine being involved and which might accidentally be in the line of the incision. Such implication of the intestine in the mass would probably give rise to constipation or obstruction. The tendency was to diarrhœa. Again, the danger of the fœtus being found lying in the cavity of the abdomen, not enclosed in a sac, was not looked for. The repeated attacks of peritonitis, so distressing to the mother, during the past months, were likely to have surrounded the cyst with a firm wall of organised lymph which would effectually separate the abdominal cavity from that occupied by the fœtus, and save opening the peritoneum proper. Without much hesitation, therefore, I resolved to operate and to extract the child through the vagina.

2ndly. The treatment of the placenta? Had the sequel been different, I could with difficulty have justified my action in removing the placenta. The weight of authority is against it. In this case the circumstances throughout were singularly favorable for removing it, and highly unfavorable for allowing it to remain. We were five miles from town, and I could not remain with her until all danger from hæmorrhage was past. I had no skilled assistant whom I could leave with her, nor could I ask my *confrères* to spend the time necessary to relieve me. She was surrounded by most unfavorable sanitary conditions. The weather was sultry. Pain had reduced her strength, and exhausted her nervous system, leaving her particularly susceptible to septic influences. To leave the placenta meant to expose her to serious risks from secondary hæmorrhage, and to increase the danger from septicæmia. If it could be removed these would be largely avoided. If I failed in my attempt to remove it by the most gentle means, the patient would not be in any worse a position than before the failure. Before I attempted its removal, I satisfied myself that if hæmorrhage should occur I could more easily apply hæmostatics to the part at that time, when

the structures (vagina, &c.) were still yielding and dilated and free from tenderness, than if it were left, and some days afterwards secondary hæmorrhage should set in and require their application. I had a right to expect that the repeated attacks of peritonitis had formed a firm wall around the fœtal sac, to which the placenta would be found attached, or with which it would be found incorporated, and if necessary this cavity could be filled with lint saturated with a styptic, which would completely control the hæmorrhage, and the substitution of this for the decomposing placenta would very much lessen the risk from pyæmia. These were the considerations which influenced me. The removal was somewhat tedious, but resulted in the loss of very little blood. The prompt application of the iron solution arrested what little oozing there was, and prevented that fatal hæmorrhage which has so often followed the forcible removal of the placenta. I consider that the mode of applying it had much to do with the success of the operation. Two immediate sources of danger from the use of iron presented themselves : (*a*) The existence of direct communication with the peritoneal cavity, and the danger of the escape of some of the solution upon the surface of the peritoneum. This was guarded against by pressing the most of the solution out of the sponge before introducing it. And (*b*) the absorption of some of the solution by the large veins or sinuses communicating with the placenta, and of embolism resulting therefrom. To meet this was more difficult. The only course that suggested itself was to use firm pressure when applying the sponge, thereby arresting for a few moments the current in the subjacent veins, whilst a clot was forming at their mouth. Removing the clot some fifteen or twenty minutes after the placenta was detached, and reapplying the styptic was an error. Under similar circumstances I would not do so again. It might have renewed the hæmorrhage : the iron could never be so thoroughly applied as at first ; and it caused considerable pain, which, in the patient's exhausted condition, might

have turned the scale against her. I would rather, if necessary, throw a solution of iron into the cavity through a pipe terminating in a spray nozzle.

There was nothing occurred during convalescence to call for remark.

The growth of so large, healthy, and well-developed a child, in so unnatural a matrix, and after the administration to the mother of morphine in so full and oft-repeated doses, are points of interest, the former to the physiologist, the latter in connection with the proposed destruction of the fœtus by drugs in cases of extra-uterine gestation. Fortunately we were denied a post-mortem, which might have settled many points that I am unable to explain. There was no history of the rupture of a Fallopian tube.

The PRESIDENT thought the Society much indebted to Dr. Mathieson for sending them the particulars of his interesting case. He (the President) could not, however, agree with Dr. Mathieson in all the conclusions he drew either as regards the general superiority of the secondary operation to the primary, or the general advantage of the vaginal operation and the immediate removal of the placenta. The decision in every case needed to be guided by the special circumstances that were present, but speaking generally, his opinion would be in favour of the primary operation, of abdominal section, and of leaving the placenta.

Dr. CHAMPNEYS observed that labour-like pains were an ordinary phenomenon of extra-uterine gestation, and need not imply any very unusual arrangement; the uterine platysma extended widely over the pelvic contents and was quite sufficient to account for the sort of labour into which the cyst spontaneously went in such cases.

Dr. AVELING suggested the possibility of the sac being a secondary uterus.

Dr. BANTOCK remarked that various ideas had been floating through his brain during the reading of the paper, and, with Dr. Aveling and Dr. Playfair, he was puzzled to find a rational explanation. In addition to the one suggested by Dr. Aveling he had formed another one, that the pregnancy being originally tubal the tube had ruptured on its under surface next the broad ligament, that in the process of development the broad ligament had been opened out, the uterus was pushed to the opposite side, and there was bulging into the vagina. Hence there would be a well-defined sac formed above

by the expanded tube, and posteriorly and anteriorly by the two layers of the broad ligament, containing abundant muscular tissue. Hence the muscular contractions, as well as the possibility of separating the placenta. He well remembered the case mentioned by the President, in which the fœtus was free in its amniotic membrane in the peritoneal cavity and the placenta attached to the fundus of the uterus and intestines at the level of the brim of the pelvis. The credit of this suggestion was due to a case reported by Gaillard Thomas, in which he removed the fœtus by the vagina, making the incision by means of the thermo-cautery. In that case the removal of the placenta nearly cost the life of the patient. This appeared to him the only rational explanation of this extraordinary case.

Dr. Carter had had a case of extra-uterine fœtation under his care; the fœtus died about term, and suppuration of the sac and severe peritonitis followed. The fœtus was removed by abdominal incision, and the cyst walls, which were very much thickened through the peritonitis, were stitched to the abdominal walls. In the case narrated without doubt the same thickening of the cyst walls resulted from the repeated attacks of peritonitis. In his case Dr. Carter could have removed the fœtus easily through the vagina, the fœtal parts filling the posterior *cul-de-sac* and pushing the uterus upwards and forwards, but an abscess pointing at the umbilicus indicated that as the rational mode for giving relief. Severe labour-like pains coming on at term have been marked as an important epoch in the history of such cases by all observers.

Dr. Edis thought that the rapid advances made during the last few years in abdominal surgery justified a more active style of treatment in these cases than was formerly deemed prudent. Dr. Parry, in his excellent monograph upon the subject, had shown how fatal the primary contrasted with the secondary operation (after the death of the fœtus) had been among the cases published, but if every case of extra-uterine gestation met with in practice, in place of being allowed to go on unrelieved, were treated appropriately by operators skilled in abdominal surgery, we should probably soon be in a position to reverse the above conclusion and save both mother and child in a large percentage of cases.

Mr. Griffith thought that the presence of a contractile cyst wall necessitated the gestation being either interstitial or in an undeveloped horn of a double uterus. He did not think that Dr. Bantock's suggestion was sufficient to explain the case.

CASE OF CYSTIC DEGENERATION OF THE CERVIX UTERI.

By Henry Gervis, M.D.

The following case, which was recently under notice at St. Thomas's, presented a uterine condition of sufficient rarity to make it, I think, deserving of a short record. N. J—, æt. 45, was admitted into Adelaide Ward, July 4th, 1883. She had had nine children, the youngest aged 5. The catamenia had ceased between three and four years ago. In the spring of this year she had noticed that the abdomen began to enlarge, and lately she had had some occasional dyspnœa. She consulted a medical man, who, under the impression there was some abdominal tumour, advised her entering the hospital. Examination of the abdomen, however, led to the conclusion that the enlargement was due to fat, chiefly in the abdominal wall, possibly to some extent also in the omentum. On examining the uterus in the course of the investigation, the cervix gave the finger the impression of being studded with numerous distended follicles, and on using the speculum, the entire vaginal aspect of the cervix was seen occupied with close-set, tense, glistening vesicles, varying in size from a millet- to a hemp-seed. There was no accompanying congestion, no endocervicitis, no leucorrhœa, no tenderness. The woman had in fact no uterine symptoms whatever, and the examination was made in the first place simply with reference to the abdominal enlargement. On puncturing these little retention-cysts, as one believed them to be, to our surprise nothing but air escaped from any of them; they simply collapsed with an audible noise. I did not on this occasion open them all, but left some purposely for further observation. In the course of a

week I again examined the cervix with the speculum. The vesicles which had been punctured were not discoverable, but those left unpunctured continued unchanged. These were now similarly treated, and with corresponding results. On a third examination at the end of another week the cervix looked perfectly healthy, showing only some slight cicatricial traces of the punctures. The uterus itself, I should add, was otherwise normal in bulk, position, and mobility. As regards the pathology of the case, I can only speak suggestively. The cysts appeared too distinct and firm to represent, as I venture to think, any form of submucous emphysema, even if such a condition were possible. I can only suppose them to represent follicles which had become distended in the usual way and from which the fluid contents had somehow been absorbed. But why, after such absorption, the vesicles had not collapsed but continued firm and tense is difficult to understand. The case in my experience is unique, and therefore of interest, although its importance is probably slight.

Dr. HERMAN said that in the President's case the condition of the cervix uteri appeared to be analogous to that of the vagina in the disease described by Winckel under the name of "colpohyperplasia cystica." Cases of that disease had been described in which the emphysematous bladders were present on the cervix as well as on the vagina. He believed that the President's case was unique in that these bladders were present in the cervix only and not on the vagina. He also believed it was the first case of the kind described in English.

JUNE 4TH, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—67 Fellows and 8 visitors.

Books were presented by Dr. Charles West, Dr. Matthew Steele (in accordance with a bequest to the Society by the late Mr. Henry Murray Steele) and the Société des Sciences Médicales de Lyon.

Thomas Appleton, M.R.C.S.; Arthur Mudge Branfoot, M.B. (Madras); William Job Collins, M.D.; John Davies, M.R.C.S.; Jamieson B. Hurry, M.B.; William Cooper Keates, L.R.C.P.; George H. W. Thomas, M.R.C.S.; and William Travers, M.D., were admitted Fellows.

Walter Roughton, L.R.C.P. Lond. (New Barnet), was declared admitted.

The following gentlemen were proposed for election:—Charles Henry Drake, M.R.C.S.; Thomas Johnston English, M.D.; John D. Malcolm, M.B., C.M.; Reginald Maples, L.R.C.P. Ed. (Newbury); Thomas Horrocks Openshaw, M.B.; Luke Robinson, M.R.C.P. Lond. (San Francisco); George Frederick Rossiter, M.B. Lond. (Weston-super-Mare); Druce J. Slater, M.B.; Frederick George Stevens, L.R.C.P. Ed. (Bristol); and Septimus Sunderland, M.D. (Brussels).

EXTIRPATION OF THE UTERUS.

Dr. Malins (Birmingham) showed the uterus removed by Schroeder's method from a patient in the General Hospital. She was forty-six years old, had two children, the youngest nineteen years ago. There was some prolapse before marriage from lifting a weight. For some years past there had been occasional procidentia with much pain and retention of urine. Various means of support had been tried without any success. The patient did well until the evening of the fourth day, when she sank somewhat suddenly; the highest temperature was 99°, and to within a few hours of death the pulse was only a little over 100. At the autopsy there was, below the level of the drainage-tube, about an ounce and a half of fluid, into which a bit of intestine and omentum dipped; this was the only part inflamed.

Dr. Heywood Smith said that in a case where he had extirpated the uterus for cancer of the cervix a fatal result was brought about from a similar cause, viz. that in the supine position Douglas's pouch lies lower than the opening made in the vagina, and so forms a receptacle for septic fluid. He was strongly of opinion that the uterus should be removed by abdominal section and a glass drainage-tube passed down into Douglas's pouch.

Dr. William A. Duncan asked what attempts had been made by plastic operations or otherwise to cure the procidentia before recourse was had to the grave and fatal one of extirpation of the entire uterus? He considered it a perfectly unjustifiable operation in procidentia of a *normal* uterus, except possibly as a *dernier ressort* when all other measures failed.

MULTILOCULAR OVARIAN CYST.

Dr. Walter (Manchester) showed a specimen of multilocular ovarian cyst which ruptured into the peritoneal cavity, and was subsequently followed by partial escape of the fluid through an inflamed and ulcerated umbilical hernia (omental).

The President had quite recently seen a case in which a small ovarian cyst had ruptured two if not three times, and the escape

of its contents into the peritoneal cavity had not been on either occasion followed by any acute peritoneal symptoms. At the operation, which took place in the previous week, the peritoneum was found generally rather dull and the omentum injected, but the patient's recovery had been uninterrupted.

A DILATOR.

Dr. Aveling exhibited a dilator which consisted of a bundle of wires in the middle of which grooved plugs of various sizes might be passed. The wires acted as directors of the plugs and were first inserted in the strictured canal. The dilator might be used for the uterus, vagina, bladder, rectum, anus, or urethra. It was the invention of Mr. Meyer.

A SPECIMEN OF SPONDYLOLISTHESIS.

By Graily Hewitt, M.D., F.R.C.P.,

AND

Samuel G. Shattock, F.R.C.S.,

CURATOR TO THE MUSEUM, UNIVERSITY COLLEGE.

The specimen exhibited is one which has been for some years in the Museum of University College, labelled as No. 170. It consists of the sacrum and lumbar vertebræ without the other bones of the pelvis. It was discovered in the Museum among the specimens of fractured bones by Dr. Neugebauer, jun., on his recent visit to this country. Owing to the circumstance of its being separated from the other pelvic bones this highly interesting specimen had up to the time of Dr. Neugebauer's visit escaped notice.

It proves to be a very complete specimen of the affection first described by Kilian, first discussed in this Society in a valuable paper by Dr. Barnes some years ago, and quite recently brought before this Society by Dr. Neugebauer, jun., of Warsaw. Dr. Neugebauer, who has devoted much time and infinite trouble to the search for cases and specimens of this disease, gives in his latest work, "Con-

tribution à la pathogenie et au diagnostic du Bassin vicié par le glissement vertébral (spondylolisthèsis)," * full reports on the subject. It appears that only seventeen specimens illustrative of this disease are known to exist.

Examination of this specimen reveals the very important fact that there is a deficiency of ossification in some of the sacral vertebræ—the first and third—hence the probability that there may have been a like deficiency in the fifth lumbar vertebra.

Fig. 1.

The fifth lumbar vertebra, from an adult skeleton otherwise normally developed. There is an absence of osseous continuity across the arch immediately behind the superior articular processes, such as is held by Dr. Neugebauer to be the fundamental or remote cause of spondylolisthesis. The parts have been artificially separated to render this more evident.

Mr. Shattock has found in another set of bones a fifth lumbar vertebra with deficient ossification of precisely the kind described by Neugebauer, and such as might have been present in the specimen of spondylolisthesis now exhibited. The vertebra is shown in fig. 1.

* 'Annales de Gynæcologie,' Paris, Fevrier, 1884.

ANATOMICAL DESCRIPTION OF A SPECIMEN (No. 170) OF SPONDYLOLISTHESIS IN UNIVERSITY COLLEGE MUSEUM.

By Samuel G. Shattock, F.R.C.S.

The body of the fifth lumbar vertebra, with which the column above maintains its normal relation, is displaced forwards and downwards so that its posterior border corresponds with the anterior margin of the upper surface of the first sacral; its size is obviously somewhat less than the body of the fourth lumbar. A supporting bracket of new bone has been formed beneath the projecting body in connection with the first sacral vertebra, a reparative production which may be considered as similar in kind to the new bone which forms round the dislocated head of the femur or other bone after long unreduced dislocation, or like the callus produced in a fracture in which the fragments have undergone displacement.

With the displaced body of the fifth lumbar, the transverse process, the pedicle of the neural arch, and the superior articular process retain their connection.

The transverse process is directed with an unnatural degree of obliquity backwards; its summit lies about five millimetres above the anterior margin of the upper surface of the ala of the sacrum. The intervertebral foramen below the pedicle of the fifth lumbar is very narrow and of a long slit-like form, directed obliquely downwards; its lower boundary is formed partly by the upper surface of the body of the first sacral vertebra, and partly by the callus projecting from the anterior border of the latter. Through this foramen the anterior division of the fifth lumbar nerve presumably passed.

An examination of the parts from the back displays the following. Above the first posterior sacral foramen is clearly recognisable the superior articular process of the first sacral vertebra, normally disposed. The spinous process of this vertebra, however, and mesial portion of the

arch are undeveloped. The arch of the second sacral vertebra is complete; that of the third again is incomplete in the median line.

Fig. 2.

A sagittal section of the specimen of spondylolisthesis described.*

a. Spinous process of the fifth lumbar vertebra, of which the body is displaced in front of the sacrum. A piece of wire has been passed from the vertebral canal through the anterior and posterior divisions of the intervertebral foramen between the fifth lumbar and first sacral vertebræ.

Above the mesial aperture in the first sacral arch the canal is completed by the arch of the fifth lumbar, in connection with which is traceable a bony eminence ankylosed

* The actual position of the specimen figured must not be taken as natural; the sacrum was probably tilted with its lower end more backwards; the lumbar curve being exaggerated to maintain the proper direction of the line of gravity.

to the inner side of the superior articular process of the first sacral vertebra, and representing the inferior articular process of the fifth lumbar vertebra.

The extreme distance between the anterior margin of

FIG. 3.

The specimen of spondylolisthesis described, as seen from the outer aspect. A piece of wire has been passed through the anterior and posterior divisions of the intervertebral foramen between the fifth lumbar and first sacral vertebræ. Above the lower part of this wire is the apex of the transverse process of the fifth lumbar vertebra, and above this latter is the eminence marking the fusion of the superior articular process of the fifth lumbar with the inferior articular process of the fourth lumbar vertebra. The eminence marking the fusion of the inferior articular process of the fifth lumbar with the superior articular process of the first sacral vertebra is that lying directly behind the posterior division of the intervertebral foramen between the same vertebræ, and through which the posterior end of the wire is passed; this eminence is fused anteriorly with the spinous process and laminæ of the fourth lumbar vertebra.

the superior articular process and the posterior limit of the inferior articular process of the fifth lumbar is five centimetres (nearly two inches). In other words this distance, after the original size of the two articular processes is subtracted, represents the amount of forward displacement which the anterior portion of the vertebra has undergone from the posterior, which maintains its normal relation to the sacrum.

Immediately in front of the ankylosed superior articular process of the first sacral vertebra and the inferior articular process of the fifth lumbar, is a narrow elliptical foramen, about five millimetres in length, leading above to a groove which passes back over the root of the inferior articular process of the fifth lumbar. This foramen represents the posterior portion of the intervertebral foramen between the fifth lumbar and the first sacral vertebræ, and through it the posterior division of the nerve has probably passed, the groove noticed as leading from it corresponding with the groove in the other lumbar vertebræ which normally marks the course of the nerve.

The capacity of the spinal canal is not seriously diminished by the displacement.

The fourth and fifth lumbar vertebræ are firmly ankylosed by bone, as is also the fifth to the sacrum. In fact the interval which would result from the displacement, between the lamina with the inferior articular process of the fifth lumbar and the superior articular with the transverse process (which retain their connection with the displaced body) is filled with bone not distinguishable in texture from the general osseous substance and continuous below with the upper surface of the sacrum, and above with the lamina and spinous process of the fourth lumbar vertebra.

From these details it may be concluded that the displacement has resulted from a solution of continuity occurring across the neural arch of the fifth lumbar vertebra between its superior and inferior articular processes on either side, but as to the cause of this solution of continuity no means is afforded by the specimen of determining its

nature. It may be safely assumed, however, to fall under one or other of the possible causes enunciated by Dr. Neugebauer, viz. congenital absence of osseous continuity of the arch in the situation described, or traumatic solution by fracture, the injury being followed by an imperfect reparative process; and the traumatic solution may either have occurred across a normally developed vertebra, or across a vertebra in which such a congenital absence of osseous union has existed.

The texture of the bones is firm and normal and bears out Dr. Neugebauer's assertion that the displacement occurs without the intervention of any inflammatory changes, or changes in the bone due to rachitis, osteomalacia, or caries. To judge from the curvature of the sacrum the subject appears to have been a female.

Mr. Noble Smith wished to call attention to a peculiarity in the specimen which was now shown, and which he had examined carefully at University College. The body of the fifth lumbar vertebra is not only displaced forwards and downwards to the front of the upper piece of the sacrum, but is firmly united by bone to the latter. This seemed to him a very important fact, and one which indicates the occurrence of a severe inflammatory process, which, coupled with the general appearance, indicated, he thought, that some caries had been present; but this caries, if it existed, may have been the result of a fracture as in a specimen exhibited by Dr. Neugebauer. The specimen shown affords valuable material for studying the question, whether the deformity is caused by caries, as Kilian first thought, or by fracture, or want of union between the inferior and superior articular processes, as Dr. Neugebauer has urged. Mr. Noble Smith thought that the nature of the union of the parts he had referred to ought to be carefully studied by those who intended to take part in discussing the subject when it again came before the Society.

Dr. Fancourt Barnes said, that after examining Dr. Neugebauer's specimen and discussing them with him, he was of the opinion that fracture of the vertebral arch was the cause of the spondylolisthetic displacement in nearly all the genuine cases.

CHRONIC PAPILLARY INFLAMMATION OF THE VULVA.

Dr. Priestley showed a drawing of an affection in women which he had ventured to call chronic papillary inflammation of the vulva.

The condition was not an infrequent one, and yet there was no very accurate description of it in the various treatises on the diseases of women.

In the drawing which had been made by Dr. Westmacott, patches of mucous membrane around the orifice of the urethra, on the nymphæ, and about the clitoris were seen to be of a deep red colour, slightly raised above the general surface, and there was an injection of the minute capillaries in the neighbourhood converging to the more marked patches; these spots were extremely sensitive to the touch, making the use of injections difficult and coitus intolerable.

When looked at with a strong lens there was evident erosion of the surface, the superficial epithelium being denuded and thus giving the surface of the patch a glistening smooth appearance. In this the angry inflamed papillæ could be distinctly recognised. An acrid muco-pus was secreted which was enough in some cases to give a copious deposit in the urine, and to render it turbid on the addition of heat or nitric acid.

The cases Dr. Priestley had seen were chiefly in women in the later period of life, and in two of the instances there was a gouty rheumatic diathesis, with a tongue habitually and abnormally red.

Although more frequently seen on the mucous membrane of the vulva, it occasionally extended into the vagina, and in one patient there were serpentine patches in the vaginal canal running up to the cervix uteri, with vivid red margins which bled on the introduction of the speculum. They bore some resemblance and analogy to patches of psoriasis or lepra on the skin.

DESCRIPTION OF PLATE III,

Illustrating Dr. Priestley's Case of Papillary Inflammation of the Vulva (from a drawing by Dr. Westmacott).

The greatest intensity of the inflammation is seen to centre in and around the urethra, whence it extends downwards to the vaginal orifice. Inflammatory double lines extend also round the nymphæ, enclosing between them a glazed surface, caused by the loss of epithelium. The drawing represents a more diffused form of inflammation than is commonly seen. Frequently it appears in circumscribed patches, dotted here and there—all exquisitely tender.

a Clitoris
b Urethra.
c. Orifice of Vagina.

West Newman & Co. chr. lith

The red specks or patches described by Sir James Simpson as "neuromata" of the vulva were no doubt small detached portions of the papillary inflammation which is shown in a more extended form in the drawing. The pathological change is probably the same as that described by Wedl as occurring in the vascular excrescence at the orifice of the urethra, viz. "dentritic or papillary."

The treatment consisted in destroying the more prominent and sensitive patches, and this might be done by concentrated carbolic acid, by nitric acid, or the acid nitrate of mercury. The two last agents produce more pain than the galvanic cautery, and Dr. Priestley had found practically that a platinum wire heated by a galvanic battery, or a Paquelin's cautery with a fine point, answered the purpose best.

CYSTIC DISEASE OF OVARY IN ITS EARLIEST STAGE.

Dr. Barnes exhibited an ovary removed during an ovariotomy which he had performed at St. George's Hospital in May last. The ovary was nipped under the retroflexed uterus, so that it was brought into view with some difficulty after uncurling the uterus. The ovary was somewhat above the normal size; it presented elevations on the surface, and in one point a blood-clot, indicating a rupture of a Graafian follicle. When the ovary was grasped blood issued from this point. It was determined to remove this ovary. On laying it open it presented several cysts on the periphery, containing limpid serum, large enough to hold a cherry-stone. This condition, Dr. Barnes submitted, might represent the initiative state of the simplest form of cystic disease of the ovary. The tumour removed was of the ordinary cystic kind. Dr. Barnes exhibited drawings taken from specimens in St. Bartholomew's and the Middlesex Hospitals for his work on

'Diseases of Women,' which presented marked similarity with the specimen exhibited. The patient has made a good recovery.

The PRESIDENT remarked that the development of ovarian cystomata from Graafian follicles was now pretty generally acknowledged to be a not very rare occurrence, and the specimen exhibited showed the early stages of such development in a highly instructive and interesting manner.

INVERSION OF UTERUS.

DR. MANSELL MOULLIN showed a uterus removed for complete inversion of four years' duration.

The patient, æt. 42, mother of three children, dated her illness from the last confinement, four years ago. The delivery had been instrumental and accompanied by great hæmorrhage. On the second day following the delivery the uterus was noticed protruding outside the vulva. No attempt appeared to have been made to reduce it, owing to the critical condition of the patient. She was suffering the most extreme distress, tenesmus, and pain of an acute neuralgic character ascending from the pelvis up the spine to the back of the head, causing syncope, and at times a semi-maniacal restlessness, aggravated at intervals of a few days.

After the more urgent symptoms had subsided she suffered from a continual coloured and watery discharge, with bearing-down pains. When the patient came under observation she was greatly reduced in strength, anæmic, and irritable, only able to get about with the aid of a ring pessary.

On examination the vagina was found to be occupied by a smooth solid mass, broad and round below, tapering upwards, somewhat compressible and elastic, and bleeding readily when touched. Only a furrow could be detected marking the position of the cervix, and the sound could not be passed into any space between the os and the

pedicle of the tumour. The diagnosis was that of complete inversion.

Elastic pressure was commenced and borne well for three days. Then, after a gentle attempt at taxis, severe and alarming symptoms of diffuse blood-poisoning set in. The temperature rose to 106°, and all attempts at local interference had to be discontinued.

The temperature returned to the normal in the course of eight or nine days, and it was decided to make no further attempt at reduction, but to remove the prolapsed fundus.

After allowing a week for improvement in the general condition of the patient she was placed under the influence of an anæsthetic. An écraseur with a thin wire was passed around the neck of the tumour, about three quarters of an inch below the furrow. Thirty minutes were spent in dividing, after tight compression had been made. The operation was unattended by shock, and not the slightest hæmorrhage occurred. Subsequent history uneventful. Recovery complete.

On examining the specimen, bands of adhesion were found connecting the peritoneal surface and the Fallopian tubes.

Dr. Mansell Moullin quite agreed that the operation should only be undertaken after all means to effect reduction had been employed and failed, but the operation then became a necessity. He did not consider the plan of incision advocated by Dr. Barnes of any service as this was a case of complete inversion of uterus and cervix, and the cervical ring was too contracted to admit of any reduction had incision been employed.

The patient had been seen by several physicians; she was a great invalid, scarcely able to get about for four years and greatly reduced by the constant hæmorrhage. The result had been most satisfactory.

Dr. Aveling had hoped never to have seen again exhibited before the Society such a specimen as had now been exhibited. He believed there was not a case of chronic inversion of the

uterus which could not be cured by his repositor. That used by Dr. Moullin was of the worst form.

Dr. Barnes would further ask if incisions in the neck of the uterus had been made to facilitate reduction. He had practised this with success. He had also reduced the inverted uterus several times by simple sustained elastic pressure. The plan had been introduced by Tyler Smith, and Dr. Charles West followed up the practice with a successful case.

PLACENTÆ AND MEMBRANES FROM A CASE OF TRIPLETS.

Dr. Horrocks exhibited this specimen, of which the following was the history:

E. W—, æt. 27, married ten years, has been pregnant five times before, bearing two living children and three miscarriages.

The last confinement was two years and eight months ago. Six weeks ago had a severe fall and was ill in bed after it. Considered she was only seven months pregnant when labour set in. The first child presented with the vertex in the first position, the membranes were ruptured, and a large quantity of liquor amnii escaped together with a hand and funis. The two latter were returned, after which the child was born and was induced to breathe after a little artificial respiration.

Another bag of membranes was now felt and another child with face presentation. The membranes were ruptured and there was a gush of liquor amnii, after which the second child was born in twenty minutes and artificial respiration was again resorted to successfully.

A third bag of membranes was felt with a vertex presentation. These membranes ruptured spontaneously and there was a third gush of liquor amnii, the child being born within ten minutes after the second. A little artificial respiration was required also with this child before it breathed naturally.

The placentæ and membranes came away in one mass without any trouble.

There appear to be two placentæ, one large with two cords, the other small with one cord. They are connected together by membrane only except in one place where there appears to be a bridge of placental tissue, but it is a little doubtful whether it be placenta or clot.

The larger placenta has the cords attached near the margins at opposite ends of the longest diameter. On the uterine surface the lobules are well marked, but on neither surface is there any division indicating that it is made up of two placentæ. The two amniotic sacs are well marked and their cavities quite separate; where the sacs touch they can be separated with ease. The large branches into which the umbilical vein of each cord divides on the fœtal surface of the placenta dip into the substance of the placenta without anastomosing with those of the other. But the arteries anastomose freely on the surface.

Injecting either umbilical vein with water it all escapes from lacerated vessels on the maternal side of the placenta without apparently passing into the branches of the other vein; whilst injecting either of the two arteries of one cord causes the water to flow out of the two arteries of the other cord, showing that there is a much freer anastomosis between the arteries than between the veins.

The small placenta had its single cord attached further from the margin than the other two, but still eccentrically. Its amniotic sac and cavity were distinct, but the wall of the sac touched the wall of one of the others.

When the vein or arteries were injected no water flowed from any of the vessels of the other two cords nor *vice versâ*.

The first-born child lived twenty-six hours and the other two about twenty-four.

The first one measured 14 inches.
The second „ 13½ „
The third „ 13 „

NOTE ON THE ABSORPTION, WITH ULTIMATE RECOVERY, OF THROMBOSIS OF THE PULMONARY ARTERY IN THE PUERPERAL STATE.

W. S. Playfair, M.D., F.R.C.P.,
PROFESSOR OF MIDWIFERY IN KING'S COLLEGE, AND PHYSICIAN FOR THE DISEASES OF WOMEN AND CHILDREN TO KING'S COLLEGE HOSPITAL.

In a series of papers I formerly contributed to the 'Lancet' on "Thrombosis and Embolism of the Pulmonary Artery as a Cause of Death in the Puerperal State," and subsequently in my systematic work on midwifery, I drew attention to the possibility of recovery in certain rare and exceptional cases after the formation of a thrombus in the pulmonary artery. I then narrated four interesting cases which had come under my own observation in which the symptoms pointed very distinctly to pulmonary obstruction, and which seemed to me inexplicable on any other theory. The question thus raised has not, so far as I am aware, been investigated by any other writer. Nor do I know of any cases that have been published of a similar character.

It is obviously, however, one of much practical interest. It is clearly a great encouragement to the practitioner who has the misfortune to come across one of the very distressing and anxious cases in which symptoms of pulmonary obstruction arise to know that there is a chance, however small, that the ultimate issue may not be fatal. The very nature of the hypothesis I am advocating renders any verification by post-mortem examination impossible, and we can, therefore, only rely on the interpretation of the clinical history of cases coming under observation.

I know, however, of no other explanation that would account for the symptoms observed in the cases I have already described, and on account of the importance of the subject I am tempted to record a fresh case which I have recently had under my care, and which I have had the opportunity of carefully watching from day to day for seven weeks, which seems to me strongly to point to the possibility of a favorable termination. I may premise that there is no *a priori* impossibility in the assumption that a coagulum in the pulmonary artery may be absorbed. We know that it is an every-day occurrence for coagula to be absorbed in vessels in other parts of the body, and we may fairly infer that what occurs elsewhere may occur in the pulmonary artery, provided the thrombus is not of too large a size to prevent the passage of sufficient blood to the lungs. Clearly, if the coagulum is of any considerable size, and if it presents any serious obstruction to the passage of blood, the case must end fatally, as the vast majority unhappily do.

It was long since pointed out by Sir James Paget that in the post-mortem examination of fatal cases of pulmonary thrombosis, the coagula generally showed obvious signs of having existed for some considerable time before death. If, therefore, in certain cases life has been prolonged for a week or more after the formation of a coagulum, there is no reason, I think, for denying the possibility of its ultimate absorption, and of complete recovery, under favorable conditions. If one practitioner has come across five such cases in his own comparatively limited sphere of observation, they cannot be so very uncommon. The symptoms, however, are obscure and may easily be misinterpreted, and I am desirous, therefore, of recording this fresh instance in the hope that it may elicit the experience of others, and draw attention to this little studied and interesting topic.

At 2 p.m. on the 24th of October I was called to a lady in her first labour, which had commenced with the rupture of the membranes. She was twenty-four years of age,

short in stature but apparently well formed, and had previously enjoyed good health.

During the whole of the afternoon of that day and of the subsequent night, she had feeble and ineffective pains. The head was presenting in the first position. After a whole night of lingering, powerless labour, little or no progress had been made. The os was pretty fully dilated, but the head did not engage in the brim; and, although there was not sufficient deformity to admit of detection, I had little doubt that there was some narrowing of the pelvic diameters. At 8 a.m. on the morning of the 25th, assisted by Dr. John Phillips, I applied Simpson's "axis traction forceps," and delivered her of a living male child, but not without much difficulty. Twenty-four hours after delivery the patient had a slight rigor, and on the evening of the 26th the temperature was found to be 106·2° and the pulse 144. The rapid rise of the temperature to so formidable a height, and the quick feeble pulse, almost that of collapse, made me fear that in the very difficult and protracted labour some serious injury might have occurred, although I could detect nothing beyond a slight laceration of the fourchette, such as generally occurs in a first labour. Next day the temperature was 102°, but this fall was not accompanied by any change for the better in the patient's condition. We detected at this time a distinct blowing murmur at the left border of the sternum and in the interspace between the second and third rib, and limited to a small area, the heart's action being tumultuous and irregular. Next day the patient was worse. She had several liquid motions, was apparently sinking, and there seemed little hope of her surviving the night. At 10 p.m. I had the advantage of meeting Sir William Jenner in consultation, and of having his eminent authority as to the site and character of the murmur, which he distinctly recognised as pulmonary. Towards 5 a.m., however, the patient rallied somewhat, although she was still in a most critical condition. It is needless to give details of the long and trying illness that followed,

which was one of the most anxious that I had ever to deal with, my present object is simply to direct attention to the peculiar feature which induces me to write this note, not to enter into particulars of symptoms or treatment. From the time I have mentioned, however, for nearly seven weeks the temperature ranged from 100° to 104°, the pulse from 90 to 120. During all this time there were no definite symptoms except the pulmonary murmur I have mentioned, accompanied by occasional attacks of dyspnœa and tumultuous and irregular action of the heart. The site of the murmur never varied nor did its rhythm, but its intensity did so to a very remarkable degree. Occasionally it became so faint as to be almost inaudible, but it never quite went for many weeks, and during the first three or four weeks of the illness it was subject to the most remarkable and inexplicable exacerbations. At one visit it could scarcely be heard, and in a few hours it would be a loud, harsh, rasping sound of great intensity, and these exacerbations were always accompanied by a rise in temperature, a frequent pulse, and tumultuous cardiac action with more or less dyspnœa.

The only other symptom of any kind worthy of notice was that in the fifth week of the illness, on auscultating the lungs during one of the many paroxysms of dyspnœa, I noticed a feeble entrance of air at the left base behind, with somewhat imperfect resonance on percussion, accompanied by a cough, which made me fear that effusion into the pleura was about to supervene ; but this passed off in a few days without coming to anything.

By about the fifth week the exacerbations and tumultuous cardiac action I have described began to lessen, and the patient was able to move in bed without bringing on dyspnœa, which, at an earlier period, she could not do. About the seventh week the murmur entirely disappeared ; there is now no trace of it whatever, and convalescence is perfectly established. There were never observed the intense paroxysms of dyspnœa I have described in some of my other cases, in which the patient seemed almost at

the point of death, but from the first any movement used to cause a distinctly tumultuous action of the heart, and an aggravation of the murmur, which used to pass off on the administration of some diffusible stimulant, such as ether and ammonia. From the first, however, the most absolute stillness was enjoined, so as to minimise, as much as possible, the risk likely to arise from any sudden call for increased supply of blood to the lungs for aëration; and this, indeed, seems to be the only thing we can do to lessen the chances of a fatal issue, when symptoms of pulmonary thrombosis have arisen.

Now, it is a fair question to ask how can this, and analogous cases, be explained except on the theory of the ultimate absorption of a thrombus deposited in the pulmonary artery or on the valves? It is possible, and, indeed, probable, that some form of septicæmia was the starting-point, since there was an initial rigor, and a prolonged pyrexia, although septicæmic symptoms were never marked, and those connected with the heart were obviously the chief feature of the case. Moreover, the murmur was developed within twenty-four hours of delivery; and I have elsewhere pointed out that in fatal cases of pulmonary thrombosis, as distinguished from embolism, the fatal result has always been observed very shortly after labour, and at a time coincident with the development of the pulmonary symptoms in this case, which was too soon to justify the hypothesis that they were a secondary result of septicæmia. Moreover, we have in the long exhausting labour and consequent shock, the very kind of antecedents which are known to favour thrombosis, and if to this we add the commencement of pyrexia, we have a state of things most favorable for promoting the deposit of blood-clot.

In the many cases of septicæmia I have seen I have never observed any with cardiac complications of the kind I have here described, and I believe that no other explanation than that I have given will satisfactorily account for them. Moreover, the physical signs observed in this, and

in the other cases I have recorded, are precisely those which we should expect, and which I have certainly observed, in cases that terminated fatally. The probability of such a murmur as that which formed so marked a characteristic in this case has been pointed out by so high an authority as Dr. Walshe, who in the last edition of his classical work says, "The only physical condition connected with the vessel itself would probably be systolic basic murmur following the course of the pulmonary main trunk and of its immediate divisions to the left and right of the sternum. This sign I most certainly heard in an old gentleman whose life was brought to a sudden close, in the course of an acute affection, by coagulation in the pulmonary artery, and to a moderate extent in the right ventricle." It seems to me very probable that many cases of this kind may have been overlooked or misinterpreted by being attributed to shock or some such cause.

Since these notes were written I have chanced to see another very instructive case of the same kind which well illustrates some curious facts in connection with the subject. Some weeks since I was asked to see the wife of a medical man in one of the suburbs, who had been confined for about three weeks. The labour had been perfectly easy, and the convalescence uninterrupted until shortly before the date of my visit. She was then suddenly attacked with violent embarrassment of the respiration and circulation, and was at once in a condition of the most urgent danger. At this time she was seen by Dr. Broadbent, who recognised the presence of a well-marked murmur over the pulmonary artery, and diagnosed pulmonary obstruction.

Some days *after* this a very extensive phlegmasia dolens developed itself in one of the lower limbs, and I was then asked to see the patient. I found the pulmonary murmur quite distinct, as Dr. Broadbent had discovered, but the intensity of the symptoms were then fortunately lessening, and ultimately the patient made a good recovery. This case was peculiarly interesting to me, for not only was the

existence of the murmur diagnosed by another physician, whose well-known skill as an auscultator precludes the possibility of error, but the subsequent appearance of a phlegmasia dolens proves to demontration its dependence on thrombosis. This is an important sequence of events certainly not common, but highly instructive, of which I have already related two instances in my work on midwifery.

Dr. BROADBENT, responding to the invitation of the President, was glad to be able to contribute a few additional particulars respecting the second of the two cases related by Dr. Playfair. The labour was severe and protracted, and the patient greatly exhausted, and from that time the temperature had fluctuated considerably, often reaching a high point, and rarely or never becoming normal; there had been one or two paroxysms of dyspnœa. At his first visit, about three weeks after the birth of the child, thrombosis had taken place, not in the pulmonary artery, but in the right auricle, and the murmur heard was a peculiar smooth triple murmur over the right edge of the sternum resembling an auricular friction. It was at first supposed that the cardiac thrombosis must be secondary to thrombosis in the veins from uterine or pelvic phlebitis, but although the abdomen was large there was no evidence or history of inflammation in or around the uterus. Phlebitis, however, was just beginning in the left posterior tibial vein. In the interval between this visit and one a few days later, a portion of thrombus had escaped from the right side of the heart and lodged in the lower part of the left lung, giving rise to the usual symptoms of pulmonary embolism, attended with impaired resonance, imperfect entry of air, and loud harsh friction; there was, however, no blood-stained expectoration. The auricular murmur was now no longer audible, but there was a systolic murmur in the pulmonary artery and obscuration of the pulmonary second sound, the coagulum interfering with the proper closure of the valves. Just at this time the right iliac vein became blocked, adding greatly to the patient's suffering and danger. He had several times had the opportunity of examining the heart when the right cavities were more or less occupied by clot, and if this extended into the pulmonary artery the second sound was obscured or lost and the sounds became greatly confused. This patient had made a complete recovery. The sounds of the heart were perfectly clear and normal, there were scarcely any traceable effects of the embolism which had taken place in the left lung, and the only remaining inconvenience was swelling of the right leg from

obstruction in the great vein. It was the only instance in which he had seen recovery after such distinct physical evidence of a thrombus in the right side of the heart.

Dr. Galabin said that in reading Dr. Playfair's former valuable contributions on the same subject, he had been rather surprised that Dr. Playfair interpreted so large a proportion of the cases as being due to primary thrombosis of the pulmonary artery rather than embolism. Yet the symptoms of dyspnœa were often sudden in their onset; most pathologists told us that when ante-mortem clots were found in the pulmonary artery, the appearance of the clot indicated embolism rather than thrombosis in the great majority of cases as the primary occurrence, and it was difficult to understand that the primary clotting was likely often to occur in a place where the current was so rapid as in the pulmonary artery, unless the patient were already in a dying state. He thought therefore that one of Dr. Playfair's present cases was of special interest in the light of the description which Dr. Broadbent had given of the early signs. There was first a bruit indicating thrombosis in the right auricle, then this disappeared and a systolic bruit appeared over the pulmonary artery. This looked as if the clot had been detached or swept away from the auricle and formed an embolism in the pulmonary artery, and he understood Dr. Broadbent to take this view of the case. He was anxious to hear whether Dr. Playfair would still hold to the view that it was a case of thrombosis and not embolism, and if so on what grounds.

Dr. Broadbent hoped he might be allowed to correct a misapprehension into which Dr. Galabin had fallen. He did not think there had been embolism in the main trunk of the pulmonary artery by the clot formed in the right auricle, but an extension of the thrombus from the auricle into the ventricle and pulmonary artery, a portion having been detached and lodged in a branch to the lower part of the left lung. In examination of cases in which ante-mortem coagulation had taken place within the heart the thrombus was sometimes found to extend continuously from the auricle through the tricuspid orifice into the ventricle and conus arteriosus, or it might be anchored among the columnæ carneæ. An embolic clot could not lodge in the main pulmonary artery, but would be carried on unless it had attachments in the ventricle. If he might be allowed to add another remark he thought that it was by disintegration rather than absorption that entire cardiac thrombi were removed.

Dr. Barnes recalled attention to a "Memoir on Thrombosis and Embolism" in vol. iv of the 'Obstetrical Transactions,' in which he had shown that in many cases, at least, thrombosis occurred first, then embolism. He had full conviction that he had seen cases of recovery from pulmonary embolism, and had referred to them in discussions in the Society.

Dr. Wiltshire had seen a case of recovery from puerperal pulmonary thrombosis in consultation with Dr. Read, in which the symptoms were typical. The patient was treated with Liquor Ammoniæ, ether, alcohol, and external warmth, and with very little watery fluid. She was also seen by Dr. B. W. Richardson, whose acquaintance with the subject was considerable, who confirmed the diagnosis. With reference to Dr. Playfair's second case he thought the diagnosis might be admitted, but as regarded the first he would suggest that possibly another view, namely that of puerperal ulcerative endocarditis, would better explain the symptoms, the heart murmur alone according with the usual symptoms of thrombosis, while the high temperature, lung, and other symptoms suggested another view.

Dr. Playfair said that Dr. Broadbent had already answered many of the objections that had been made in the discussion. With regard to Dr. Galabin's statement that the blood current in the pulmonary artery was too strong to admit of primary thrombosis there, he was of course aware that this was the theory maintained by Dr. Benjamin Ball and others, who believed that pulmonary obstruction was always due to embolism. He had fully discussed this point elsewhere, and shown that the sudden breaking up of the pulmonary artery into several large trunks caused such a slackening of the current as to render thrombosis quite possible. Moreover, he had pointed out that there were many distinctions between primary thrombosis and embolism, as was easily made out by an examination of recorded cases, for example the former always occurred, as in this instance, a few days after delivery, the latter not until two or three weeks, when the primary thrombus in a peripheral vein had had time to soften and admit of an embolism to become detached. He had no reason to think that there was any ground for believing that his case was one of ulcerative endocarditis, as Dr. Wiltshire suggested. The continuance of the murmur so long was quite natural; it must exist so long as the coagulum was not entirely absorbed, and there was no reason to expect that this would be sooner effected in the pulmonary artery than in the peripheral veins, in which coagula remained much longer.

ON FŒTAL REVOLUTIONS.

By J. Matthews Duncan, M.D.

Among fœtal movements during pregnancy and labour there are many varieties; flexions, extensions, rotations, and revolutions. A part, as a limb or the head, may be flexed or extended or rotated or revolved; or the fœtus, as an entire mass, may be flexed or extended or rotated or revolved; and there may be combinations of flexion and of extension with rotation and with revolution. There may be, as in the birth of the head, special or greater rotation of a part with less rotation of the whole body; and the same is true of revolutions.

Flexions, extensions, and rotations are familiar to the obstetrician, but the same cannot be said of the revolutions. Some of the revolutions are well known and described, though not distinctly recognised as revolutions; some are confounded with rotations; some are erroneously or imperfectly described; and some are matters of question, or not described at all.

A rotation is a movement on an internal axis which may be central or excentric. Revolution is a movement on an axis or centre outside the body moved. In rotation the movements of the whole and of parts are in circles or parts of circles if the body, as a mass, is stationary; but if it is revolving the rotatory movement describes, not circles or parts of circles, but spirals. In revolution the movement may or may not be circular; and, in obstetrical discussions, it may be held as not implying return to the point of starting if the revolution be continued.

The movement of "culbute," or a change of the lie of

the fœtus at an advanced period of pregnancy, is often spoken of as a movement of the child on a transverse fœtal axis or a rotation, just as a change of position is described as a movement of rotation on a longitudinal fœtal axis. But while changes of position are truly rotations, changes in lie cannot justly be so regarded. In a natural pregnancy of the latter months, change of lie, implying as it does change of presentation, cannot take place by rotation around any transverse fœtal axis : there is no room for such a movement. To permit of it at or near the full time would require about twelve inches in the transverse diameter of the womb if the fœtus were rigid ; and, if in the course of the movement it were flexed, the movement would not be one of rotation.

This movement of change of lie, implying change of presentation, is not a rare one; and it is a revolution around a centre or imaginary axis transverse to the direction of the length of the fœtus in front of its trunk. If the child is very fat, or if, from any cause, it has prominent thorax and abdomen, then the movement will be, strictly defined, a rotation ; that is, the axis of movement will be within the body of the child although excentric. But it is always to be regarded and considered practically as a revolution, not a rotation. It can take place only when there is some approach to globosity in the shape of the uterine cavity, and is commoner in subsequent than in first pregnancies.

The revolutionary character of this movement is illustrated and described in the mechanism of that method of spontaneous delivery in transverse or oblique presentation called the spontaneous evolution of Denman, as well as in the analogous turning performed in similar circumstances, whether the version be podalic or cephalic. The spontaneous evolution of Denman and its imitation by art are done in circumstances that are not common and very far from natural. For most practitioners the revolutionary character of the movement will be best brought before the mind by the recollection of turning done in cases in which

the head is presenting. In any case where turning is desirable, and whether the head presents or not, it may be rendered dangerous or impossible by the absence of that globosity which, as well as a degree of mere spaciousness, is necessary for the success of the operation. Cases occur where there is no deficiency of mere spaciousness, where yet turning is impossible because the rotation of the fœtus on an internal axis transverse to its length is impossible. In such cases the uterus has an elongated cylindrical shape, and neither rotation on a transverse axis nor revolution is possible; the more the feet are pulled upon, the more, if the vertex presents, is the head pressed down. The revolutionary movement cannot get a commencement.

Except in cases of early pregnancy or of hydramnios rotation of the fœtus on an internal axis transverse to its length is impossible. Revolution with flexion of the child can be effected within much smaller limits of space than rotation.

In the mechanism of delivery attention is too exclusively directed to the passage of the head. This is natural, for its passage is the most difficult and most important, especially to the practitioner. But though this is the case the neglect implied is injurious, not because in the description of the mechanism there is much variation from the truth, but because the integrity of the truth is not respected nor the whole truth given. The head in its passage is not alone acted on and acting, but forms part of the peculiarly constituted viscous fœtal mass. It is the leading part, the most valuable part, the largest part, the least mouldable part, but it is only a part. The whole fœtal mass has during its passage become for the first time extended; the extension is not direct, but to one side; in the left occipito-anterior position, to the right side, the left side being more stretched or extended than the right. In this state of one-sided extension the head emerges from the vulva asynclitically and extended and as part of the general fœtal mass or body, the whole revolving

around a point somewhere in, or in front of, the symphysis pubis.

It is usual, paying too exclusive attention to the head, to describe it in its emergence as becoming extended upon or revolving around the lower part of the symphysis pubis or to describe some point in the nucha or adjacent occiput as becoming a fixed point around which the head revolves or moves by extension. But this account, though nearly true and sufficiently so for most practical purposes, is not the truth. The head is truly revolving around the same centre as the body is revolving around; no part of the head, nucha, or body, becomes a fixed point or centre. But the extent of motion of the occiput or nucha, as the head emerges, is small, being near the centre of motion, while the more remote sinciput and face are describing larger curves, and the whole is consequently becoming extended.

Mutatis mutandis, the same remarks apply to delivery with the pelvic pole of the fœtus coming first.

In oblique or transverse presentations when the fœtus is expelled "*corpore conduplicato,*" as described by Kleinwächter, the great element of the mechanism is the revolutionary movement along a part of the so-called circle of Carus. The body of the fœtus is unfolded and again folded on itself; the presenting part steadily advances; the head and body are simultaneously squeezed through the genital passage; the whole revolving around a centre in or in front of the symphysis pubis. The difficulty may be likened to that experienced in a case of pelvis equabiliter justo minor.

In oblique presentations, when the ordinary mechanism of spontaneous expulsion is followed, as described by Douglas and Dubois, we have a grand example of a revolution effected generally with the utmost difficulty. Here the centre is the same as for other cases of passage of the body. But the problem is not the same as in expulsion corpore conduplicato.

In this expulsion of Douglas, where the force and the resistance are nearly balanced, the revolution adds an

important part to the resistance. The less the curve, or in other words, the less the radius, the greater is the resistance in consequence of the curve. Were the passage straight it would be, comparatively, an easy matter to force the fœtus through it.

As the presenting shoulder comes beneath the symphysis, the greatest difficulty is encountered. The body is doubled or folded on itself and forced into the pelvis. The nearly viscous fœtal mass is not equally pressed on at all parts; the posterior parts or those near the concavity of the curve fortunately undergo the greater part of the pressure, for it is in their advance, that is, the advance of the lower half of the body, that hope lies of a spontaneous termination. The anterior parts, besides undergoing less pressure, are restrained, not stopped utterly, in their descent, by the head being almost entirely arrested as it overhangs the horizontal ramus of the pubic bone which lies at the anterior end of the oblique diameter of the brim, through the posterior part of which the lower half of the body has just advanced. While the lower part of the body is descending more rapidly along the concavity of the curved genital passage, the upper part of the body, and specially the presenting shoulder adpressed to the lower part of the symphysis, is moving less rapidly, but co-ordinately, never retreating, always advancing along a curve of shorter radius than that described by the lower parts of the body. In the course of this expulsion and before the head has entered the pelvic excavation, the presenting point is always changing; the part at first in the axis of the genital passage may have been the shoulder or near it, but, as the body descends, it is replaced, successively, by the thorax, abdomen, and pelvis of the fœtus.

In double monstrosity, especially in the commoner form, by union of bodies anteriorly, and in analogous cases of locked twins, the influence of the curve of the genital passage and the consequent revolutionary movement are well observed. I shall make only brief allusion to them. Regarding the birth of double monsters, Playfair in the

eighth volume of our 'Transactions' has well remarked that nothing can better show the wonderful resources of nature in overcoming difficulties of a very formidable kind. Double monsters and locked twins may be simply forced through the passage, the head of one child being accommodated in the hollow of the neck of the other, and both heads being simultaneously, though not side by side, within the canal. But, in what appears to be the regular mechanism in double monsters, the revolution of the mass has analogy with the spontaneous expulsion of Douglas. One head is expelled while the other is pressed above and over a pubic bone; the commissural parts are pressed against the anterior pelvic wall at one side of the symphysis; and, revolving, the whole is expelled. First, one head, then upper part of appertaining body, then lower parts of both bodies, then upper part of second body, and lastly, second head.

The last revolution of the whole body to which I shall refer is that observed in labours obstructed by cords abnormally short yet allowing the head to be born, or the trunk, before obstruction to farther progress is nearly complete. On this subject, however, I cannot occupy the time of the Society because I have so lately described it in a paper on "Shortness of the Cord as a Cause of Obstruction to the Natural Progress of Labour" published in the 'Transactions,' vol. xxiii for 1881, p. 250.

On the so-called revolutions of the head as it emerges from the vulva in vertex and in face presentations I shall say nothing, because I have already referred sufficiently to them; and because, as is also already said, they are more truly regarded as mere elements of the revolution of the whole body or fœtal mass.

In this place I only refer to two cranial movements which are described by myself as revolutions of parts, but are open to the same criticism as I have applied to the passage of the head in vertex and face cases. These movements I have lately described to the Society in a laboratory paper entitled "The Revolutions of the Fœtal Head in

passing through a Brim contracted only in the Conjugate Diameter," and published (p. 151) in the 'Transactions' for 1878, vol. xx. These movements are, first, on the symphysis pubis, the head revolving so that the posterior parietal bone pressing on the sacrum advances into the pelvis, describing a larger curve than the anterior; and second and subsequently, on the sacral promontory, the head revolving through the lower segment of Barnes's curve, so that the anterior parietal bone descends, describing a larger curve than the posterior.

The subject of revolutions requires still farther consideration, especially as to the sources of difficulty and their remedial treatment, but, on this department, I do not meantime enter, satisfying myself with a bare statement of them.

The intrinsic difficulty is, of course, in proportion to the shortness of radius, or acuteness of the curve, and in different pelves this radius varies greatly, especially in those decidedly abnormal. The next great difficulty is in the largeness of the body to be forced through the passage, and this is easily understood. This difficulty from size may be modified by favorable or unfavorable changes of fœtal position or attitude as the passage is being effected. It may also be favorably modified by diminution of bulk, by moulding, or by other change of shape, of the head or trunk. Lastly, difficulty may arise from rigidity of the body to be passed—such rigidity as has been illustrated by cases of anchylosis of the vertebral column, and as is seen in the more ordinary process of spontaneous evolution when the spine has to be extremely flexed. This rigidity is also a cause of difficulty in the extended position of the fœtal lower limbs in breech cases, and has been, in its practical bearings, ably discussed by Lefour and Olivier. In this case the extended limbs act as splints and prevent or diminish desirable changes in fœtal attitude, with a view to revolution.

The PRESIDENT, in thanking Dr. Duncan for his valuable paper,

remarked on the importance of the two leading ideas of the paper; ideas which were too frequently overlooked, the revolutions of the fœtus, in contradistinction simply to its own axial rotations; and the way in which the whole fœtal mass shared in its movements.

Dr. Galabin thought that the paper, like all Dr. Duncan's contributions, indicated the care and accuracy of the author's clinical observations. He was not, however, sure whether he rightly understood the author as holding that some movements, hitherto generally described as rotations, were more correctly to be considered as revolutions round an external axis. If so, he felt bound to contend against this view on mechanical principles. He called attention to a principle which was itself one of geometry of three dimensions, but was used as a basis for dynamics. It was usual in dynamics to describe any movement of a body as made up of the movements of translation of its centre of gravity resolved in three directions at right angles to each other, and of the rotations around the centre of gravity, also referred to three rectangular axes. Any change of shape in the moving body must of course be taken into account in addition. The three movements of translation could be compounded into one movement, and the three rotations into one rotation. Any possible movement of a body (apart from change of shape) could therefore be exactly represented by describing the path of the centre of gravity, and a single rotation about that centre of gravity. But it was not possible to combine the movement and the rotation into a single rotation, or, as the author called it, revolution, about an external axis, unless the movement and the rotation happened to be in the same plane. This would only happen when the whole movement was constrained to take place in one plane, as when a crank was turned upon a pivot, or a body was pushed about upon a flat table. In other words, no such thing as what was called in mechanics an axis of instantaneous rotation existed in general for motion in three dimensions, but only for motion in one plane. With a body like the fœtal head or trunk, acted on by forces and resistances in various directions, the probability was infinity to one against the motion ever being accurately represented as a single rotation or revolution about an external axis. In other words, it was impossible that it ever could be so. And the probabilities were very great against such a description being ever even an approximation to the truth. The only strictly accurate method was to describe the motion of the centre of the head or of the trunk, and the rotation or rotations about that centre. Thus, when it was said for instance that the head, in passing out of the pelvis, rotated or revolved about a centre in or near the symphysis pubis, it should be remembered that this was only a graphic but inaccurate mode of describing the motion, a not inconsiderable

nor unimportant part of the actual motion being ignored. There was another point in the paper to which he could not agree, namely, that the author described the fœtus as a viscous body. The fœtus did not flow out of the uterus like treacle. Dr. Galabin contended that, although plastic to a considerable but limited extent, it was not a viscous body at all. On the contrary, so far as mechanics could be applied to the motions of the fœtus, they were the statics or dynamics of rigid bodies, not hydrostatics or hydrodynamics. For instance, version could never be performed upon any viscous body. In version, the first effect of the traction upon the leg was to bend the fœtus upon itself, until its pliability or plasticity in that particular direction was exhausted. The fœtus then began to act like a rigid body, not a viscous body, that is to say, it became a lever, and the continued traction on the leg by lowering one pole, the breech, elevated the opposite pole, namely, the head.

Dr. Champneys wished to call attention to one practical point. The movement by which the head is born is generally described as one of extension simply, whereas it is one of extension with advance, or in other words, part of a revolution. If the birth of the head be accelerated either by pressure through the perinæum on the forehead, or by one or more fingers in the rectum, so used as to produce mere extension, regardless of the accompanying advance, the result will be that the vulva will be distended by a circumference of the head larger than necessary, viz. by a part approaching to that corresponding with the larger fronto-occipital instead of the smaller suboccipito-frontal diameter; a difference which may, and in many cases does, make the difference between a ruptured and an entire perinæum. He would leave Dr. Duncan to defend his own language as criticised by Dr. Galabin, but he would just say that the words "revolution" and "rotation" were familiar to all who were aware that the moon rotates on its own axis and revolves around the earth, whereas the elaborate mathematical terms referred to by Dr. Galabin were not. The words "revolution" and "rotation" expressed the facts with sufficient accuracy, and were most useful for teaching purposes. With regard to the term "viscosity" as applied to the fœtus, he was not sure that a fœtus under certain circumstances was so unlike a glacier as Dr. Galabin seemed to think, except in superficial appearance. There were the advances of the more mobile parts by expression (as, for instance of the cord, of limbs, &c.), and also their retardation by friction (as in the case of the legs in impacted breech and the arms above the head in head-last cases). Under such conditions there were some elements of "viscosity" which prevented us from regarding the fœtus as a series of rigid levers.

After the meeting Dr. Heywood Smith exhibited an electric

speculum, the invention of Mr. Ayres. It was made of aluminium and was run with a very small and portable battery. The advantages claimed are that the light (from two small Swan lights) is quite shaded from the eye of the observer and thrown straight down the speculum. There being, therefore, no lamp in the way, the operator can observe and make any application to the cervix uteri or vagina; there is no danger of setting fire to the bedclothes, or of alarming the patient. The light is very good and quite steady. It can be procured at Elliott Brothers, Charing Cross and St. Martin's Lane.

JULY 2ND, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—44 Fellows and 6 visitors.

Books were presented by Dr. Fowler and the Council of University College.

Stephen Herbert Appleford, M.R.C.S., was admitted a Fellow of the Society.

The following gentlemen were elected Fellows :—Charles Henry Drake, M.R.C.S. ; Thomas Johnston English, M.D. ; John D. Malcolm, M.B. ; Reginald Maples, L.R.C.P. Ed. (Newbury) ; Thomas Horrocks Openshaw, M.B. (Poplar) ; Luke Robinson, M.R.C.P. Lond. (San Francisco) ; George Frederick Rossiter, M.B. Lond. (Weston-super-Mare) ; Druce John Slater, M.B. (Putney) ; Frederick George Stevens, L.R.C.P. Ed. (Bristol) ; and Septimus Sunderland, M.D.

VESICAL CALCULUS.

DR. GODSON showed a calculus weighing one ounce, composed of phosphate, with no foreign body as a nucleus, which he had removed from a woman aged about 30. It was half in the vagina, and half in the bladder, a vesico-

vaginal fistula having been caused by it. It was easily removed through the vagina by forceps. The chief point of interest was the slight disturbance it had given rise to, no complaint having been made by the patient until she was unable to retain her urine. A few days after its removal a second but much smaller phosphatic calculus was expelled from the vagina.

PORTABLE TRANSFUSION APPARATUS.

By William Walter, M.A., M.D.,
SURGEON (LATE OBSTETRIC SURGEON) TO ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, AND THE MANCHESTER AND SALFORD LYING-IN HOSPITAL.

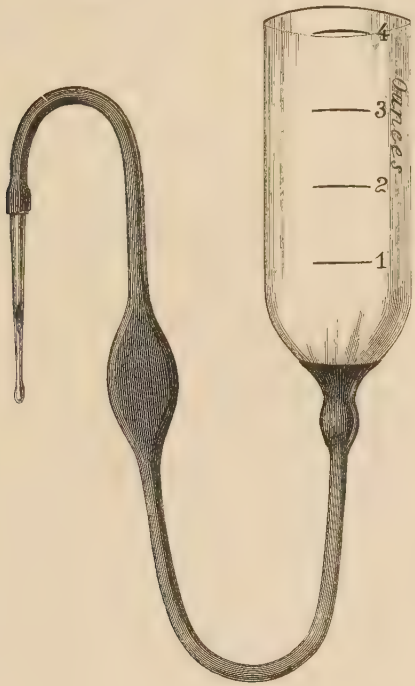
The instrument was essentially the one known as Dr. Robert McDonnell's for defibrinated blood or saline solutions, the only alteration being one of portability, and was made for the author by Messrs. Weiss and Son.

The apparatus consisted of a glass tube sufficiently large to hold four ounces of fluid. One end of the apparatus was drawn to a point, for the purpose of connecting to it a piece of india-rubber tube, which in form resembled a very small Higginson's syringe; to the distal end of the tube was fixed a silver cannula, having a probe point extending some distance beyond the eye. Before charging the apparatus with blood, a clip or some form of spring forceps is placed on the tube, and as soon as the instrument is charged, it is allowed to stand in a small vessel of hot water, so that the blood may remain at a proper temperature until required for use.

A vein in the bend of the patient's elbow is then exposed, and when an opening has been made into it the point of the silver cannula is inserted, but before pushing the cannula its entire length into the vein the clip is

taken off and a little blood is permitted to escape through the eyelet-hole so that all air may be expelled from the tube.

When the apparatus is raised the blood will sometimes enter the vein by its own weight, but generally it is



necessary to force the blood into the vein by squeezing the dilatation on the tube.

The instrument was easy to use and much safer than any form of syringe, the pistons of which are so often out of order when required to be used.

The PRESIDENT asked how frequently Dr. Walter had used his apparatus, and with what results?

Dr. BRAXTON HICKS remarked that when he was engaged first

of all in experiments on transfusion some twenty years ago, he had constructed an instrument like the one shown, only the funnel was in vulcanite with a bulb in the same position, and he believed this was the origin of all the bulbous tubes, and the silver nozzle was provided in like manner with a prolongation. But when he used non-coagulating blood, he employed a syringe which could be removed from the silver nozzle when required for filling. When pure blood was used Dr. Hicks insisted that no force should be used because the obstructing matter would be forced into the veins and give rise to dangers. Simple gravitation was safer.

DOUBLE UTERUS WITH DECIDUOUS MEMBRANE.

Dr. Cleveland showed a uterus bicornis with single cervix, together with a fleshy deciduous substance in two parts, the latter imperfect and shrunken from immersion in spirit, from two to three inches long, and about an inch wide, that had been expelled after delivery.

The case occurred in the practice of Mr. Willcox, of Warminster. The patient was forty when she died last year from ulceration of the small intestines. She had borne ten children at term and had twice miscarried. Mr. Willcox, who first attended her in her sixth labour, was told "she always bred with something else beside the child," and if it did not come away during the labour it would come afterwards. This was found to be the case, for, with one exception, when the mass was passed during the early part of the labour, no sooner was the child born than violent uterine contractions followed, which were in no degree mitigated by the extrusion of the placenta, but continued almost incessantly for a period varying from thirty hours to three days, at the end of which time a substance like that now exhibited was expelled. Although the mass was perfectly sweet and attended with

Double uterus.

[illegible] unimpregnated side after delivery

West, Newman & Co. chr. lith.

little or no discharge, the constitutional irritation that prevailed during its passage was severe. The temperature rose to 105°; the pulse was 140; tongue dry and glazed; abdomen distended and exquisitely tender. Sedatives were of no avail, but the pain ceased immediately after expulsion. Palpation failed to determine the existence of a double organ, but there was more swelling and tenderness after parturition than usual.

Dr. Cleveland drew attention to the resemblance of this case to the one from which, on three occasions, he had exhibited deciduous masses, voided after delivery; and pointed out that the anatomical condition of the uterus, suggested by the Committee appointed to examine his specimen, was confirmed by the post-mortem examination in Mr. Willcox's case. He offered as an explanation of the marked difference between the two cases, as regards the pain, &c., during the passage of the substance, that in one the orifice leading to the unimpregnated side of the uterus might be patulous or dilatable, while in the other it was narrow and rigid.

The PRESIDENT asked Dr. Cleveland if in his own case any irregularity of fundus had ever been detected by the bimanual under anæsthetic. He would suggest that Mr. Willcox's specimen be referred to the same committee as were reporting on Dr. Cleveland's.

Dr. WILTSHIRE suggested that after examination by the Committee the specimen should, if possible, be secured for the museum. He thought that the pain might be explained on other than mere mechanical grounds, as arising from separate or independent action of one horn of the double uterus. A case seen by Dr. Wiltshire in consultation, where there were twin children, one being born some hours before the other, wherein agonising but futile pains were present owing to only one side of the uterus contracting, showed that unequal action might cause pain and difficulty; and he regarded this as illustrating the primitive duplicity of Müller's ducts, either half of which might act independently of the other, as seen in rabbits and other rodentia. The specimen shown was the permanent condition existing in some of the lower animals, and was, indeed, as regarded the uterus of the human species and higher apes, an arrest of evolution.

Dr. CHAMPNEYS said that a double uterus with a single cervix

was not a peculiarity of rabbits, but was the common arrangement among most of the lower animals.

PEDUNCULATED FIBROID.

Dr. William Duncan showed a pedunculated fibroid which he had removed from the fundus of a prolapsed uterus in a single woman, aged 59. The tumour first appeared external to the vulva about six months previously; it gradually increased in size, and at the time of its removal by the écraseur was undergoing superficial sloughing. The patient made a good recovery.

SPONDYLOLISTHESIS.

Report to the Obstetrical Society of London by a Committee appointed by the Society to examine a series of anatomical specimens and photographs shown by Dr. Franz Neugebauer, of Warsaw, at a meeting of the Society on April 2nd, 1884.

The Committee, consisting of Dr. Robert Barnes and Messrs. W. Adams, Noble Smith, and Alban Doran, met Dr. Neugebauer at 15, Harley Street, on Friday, April 4th, and they now submit to the Society the following report:

Before recording our opinions of the specimens submitted to us, it is necessary to describe briefly Dr. Neugebauer's views regarding the deformity called spondylolisthesis.

He considers that the deformity may occur at any part

of the spine, but describes the usual form. He considers that "the essential lesion" consists in a sliding forward, not of the whole of the fifth lumbar vertebra, but of its anterior part, consisting of the body, the pedicles, and the superior articular processes; while the transverse processes, the inferior articular processes, and the spinous process remain *in sitû* and undergo but a partial displacement—a change of direction. If we bear in mind the nature of the union between the fifth lumbar vertebra and the sacrum, we shall appreciate the fact that the inferior articular processes of the fifth lumbar vertebra are prevented from gliding forward by their contact with the sacrum, and that unless these processes are in some way disconnected from the rest of the vertebra spondylolisthesis cannot take place, and the same argument applies to other parts of the spine.

Neugebauer considers that the predisposing cause of spondylolisthesis is either a congenital deficiency between the superior and inferior articular processes on both sides, or fracture of the same parts.

Such predisposing causes may remain throughout life without giving rise to a spondylolisthesis, but when the spines of the individuals who are thus affected are subjected to great weight in the abdominal region, such as in repeated pregnancies or in obesity, then the spine may glide forward at the junction of the fifth lumbar vertebra and the sacrum, because the inferior articular processes of the former bone are not sufficiently firmly united to the anterior part of the vertebra to exercise their natural restraining influence.

The following are the specimens and photographs examined by us:

Specimens shown by Dr. Neugebauer.

1. A fifth lumbar vertebra, which he described as an instance of *Spondylolysis interarticularis congenita* of one side.

2. Three specimens of fifth lumbar vertebra, with double *Spondylolysis interarticularis congenita.*

3. A specimen of spondylolisthesis upon one side, or hemiolisthesis of the fourth lumbar vertebra caused by a similar spondylolysis.

4. A fifth lumbar vertebra of a child with a *Spondylolysis interarticularis congenita* of the right side.

5. A specimen of *Spondylolysis congenita articularis* of the fourth cervical vertebra.

6. A wax model, after nature, of the fifth lumbar vertebra of the Prague Würzburg pelvis, made by the author.

7. A specimen in which the fourth, fifth, and sixth dorsal vertebræ are united into one piece; of the fifth only the right half exists, the left half is entirely absent from arrest of development. There is angular scoliosis of the column.

8. A vertebral column with fracture of the ninth dorsal vertebra at the interarticular part, angular kyphosis with complete rupture of the spinal cord, the patient having survived the injury five months.

9. Dr. Neugebauer also exhibited a series of about eighty photographs bearing upon his observations of spondylolisthesis, and lastly photographs taken from patients whom he considered were suffering from this affection and from other deformities of the trunk of the body.

Among a great many specimens examined, Dr. Neugebauer had found eighty-six in which congenital want of union as above described existed; these were chiefly (90 per cent.) in the lumbar region. In only seven of these specimens had spondylolisthesis taken place.

The specimens under Nos. 1, 2, 4, and 5 (seven in all) were submitted as such cases, and we agree with Dr. Neugebauer as to their nature.

No. 3 affords very strong evidence that the deformity may occur from this congenital deficiency, because, upon the side where the want of union occurs, the vertebra has become displaced forwards, whereas upon the other side no such displacement has taken place.

No. 6.—This represents the specimen upon which Lambl based his theory of hydrorachis as the cause of spondylolisthesis. Lambl considered that there exists a supernumerary vertebra, but Neugebauer says that the apparent duplicity of the transverse and left superior articular apophyses of the fifth vertebra is the consequence of a congenital division; the congenital want of union is not in the interarticular part—as in most other cases—but *through* the superior articular and transverse apophysis, thus producing the appearance of two vertebræ.

He also points out to us that there is really no sign of hydrorachis, and, in fact, he has convinced Professor Lambl that such view is incorrect.

No. 7 was also shown as a specimen of congenital deformity of the spine.

No. 8 was shown as a specimen of displacement of the body of one vertebra forwards upon another, the result of fracture, and that caries resulted afterwards, caused by the irritation of the surfaces of bone. This explains, he says, the appearance of caries in the cases of spondylolisthesis which have been supposed to have been caused by this disease.*

No. 9.—The photographs were very interesting and were seen by the Fellows of the Society, but we do not consider that they call for any remark from us. In conclusion, we state our opinion that the specimens shown by Dr. Neugebauer seem to us to support the theories which he has advanced and which we have described. They are in opposition to the views formerly held, namely, that the deformity occurred from caries, or from rickets, or osteomalacia, tuberculosis, or from hydrorachis.

ROBERT BARNES.
WM. ADAMS.
NOBLE SMITH.
ALBAN DORAN.

* Mr. Noble Smith refers us to cases in the College of Surgeons, University College, and elsewhere, where the same condition exists.

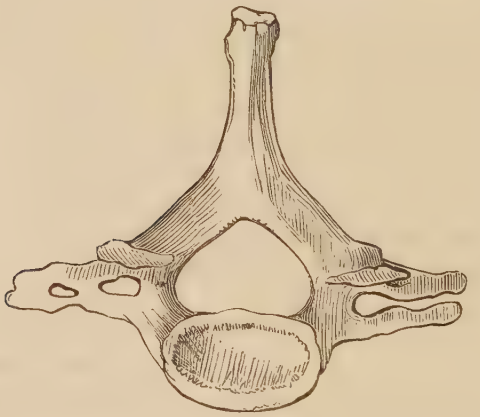
Separate note by Mr. Noble Smith.

The specimens shown at the meeting of the Obstetrical Society by Dr. Neugebauer, to examine which a Sub-Committee was formed, seem to illustrate the possibility of the deformity occurring from the causes set forth by Dr. Neugebauer, namely, first, from a congenital want of union of the arches between the articular processes, and second, fracture in the same position.

These are predisposing causes, abdominal weight being the exciting cause, and especially among the labouring classes.

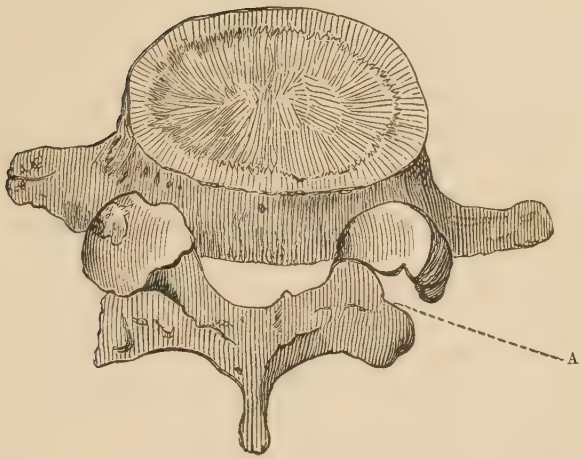
The specimens of vertebræ, of which I append drawings, are in the museum of the Royal College of Surgeons. No. 1 shows a partial separation. No. 2 shows complete separation upon one side. No. 3 shows complete separation on both sides, the arch being lost. There is a third or fourth lumbar vertebra at University College which is similar to this last specimen, and in both of them the

FIG. 1.



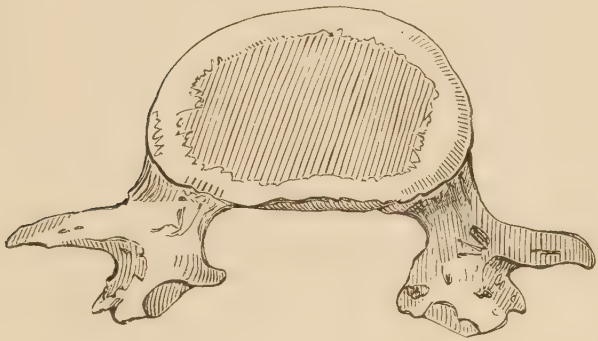
A cervical vertebra, showing incomplete union of the neural arch to the rest of the bone (Royal College of Surgeons Museum).

FIG. 2.



A lumbar vertebra, in which there is a want of bony union (A) between the right lamina and the right pedicle (Royal College of Surgeons Museum).

FIG. 3.



Fifth lumbar vertebra, from which the neural arch has been disunited, and to which that arch has apparently not been attached by bone. Below the superior articular processes there exists a rough surface, not like that produced by caries, but rather as if ligament had been attached (Royal College of Surgeons Museum).

surfaces of the separated bones have a rough appearance, but are certainly very different from the appearance produced by caries, and as it was to caries that this deformity was formerly attributed, such evidence is of importance.

Fracture is considered by Dr. Neugebauer as a frequent cause of the deformity, and one of his specimens showed a fracture in the dorsal region which allowed the upper part of the spine to be displaced forwards, and in which there was also caries, apparently as a consequence of the fracture.

Of the spondylolisthetic pelves he was not able to show us examples, but only drawings. I have therefore examined with much interest a specimen at University College which bears a very close resemblance to Dr. Neugebauer's woodcut of Lambl's specimen, that identical specimen upon which Lambl founded his theory of caries as the cause. There are two points in this specimen from University College to which I would call attention: 1st. The elongated bony union between the superior and the inferior articular processes; and, 2nd, to the firm, osseous ankylosis between the posterior part of the body of the fifth lumbar vertebra and the anterior part of the body of the first sacral. These conditions indicate a severe inflammatory process, and I should imagine that the ankylosis referred to probably indicates the existence at some time of caries of the two surfaces. But even if caries has existed, I am inclined to think that this specimen is still in favour of Neugebauer's theory, and that probably in this case fracture took place first, and that caries occurred subsequently in consequence of the continued irritation between the two surfaces of bone.

NOBLE SMITH.

FIBRO-CYSTIC MYOMA OF UTERUS. SEPTICÆMIA.

By H. A. Lediard (Carlisle).

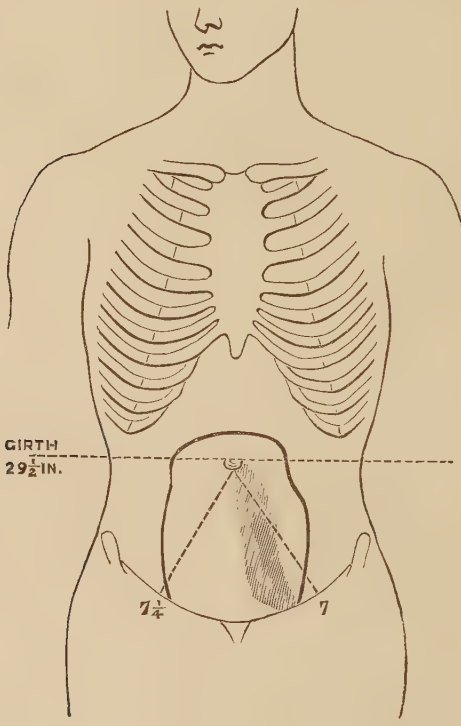
The woman from whom the specimen was taken was thirty-six years of age, and was admitted into the Cumberland Infirmary, Carlisle, on July 25th, 1883. Notes were carefully recorded by Dr. Leith Waters, house surgeon. The chief complaints were of swelling of the abdomen, pain across the back and front of abdomen, vomiting, and menorrhagia.

Up to twelve months ago the patient has been quite healthy; at the age of twenty-two she was delivered of a female child, with considerable loss, but recovered perfectly.

Menstruation commenced between eleven and twelve, the periods having been very regular, but she thinks the amount lost more than is usual with women. Pain began in the back twelve months ago, is worse a week before menstruation, and does not entirely leave her between the periods. Three months ago she noticed the tumour, which was about the size of a cocoa-nut; since then it has gradually increased, and she says it enlarges when the pain is severe. Menorrhagia set in a year ago and has been the characteristic of all her periods since; she has also irregular attacks of bleeding (*i. e.* vaginal), accompanied by pain shooting through from the back into the abdomen, sometimes once a week, sometimes every day. Vomiting has existed for the last week only, and only when the pain is severe.

The patient is pale, anæmic, weak, and careworn; pulse 76, respirations 24. There is a median abdominal swelling extending two inches and a half above the umbilicus, in consistence hard, especially at the upper part; an indistinct sense of fluctuation over the lower; the

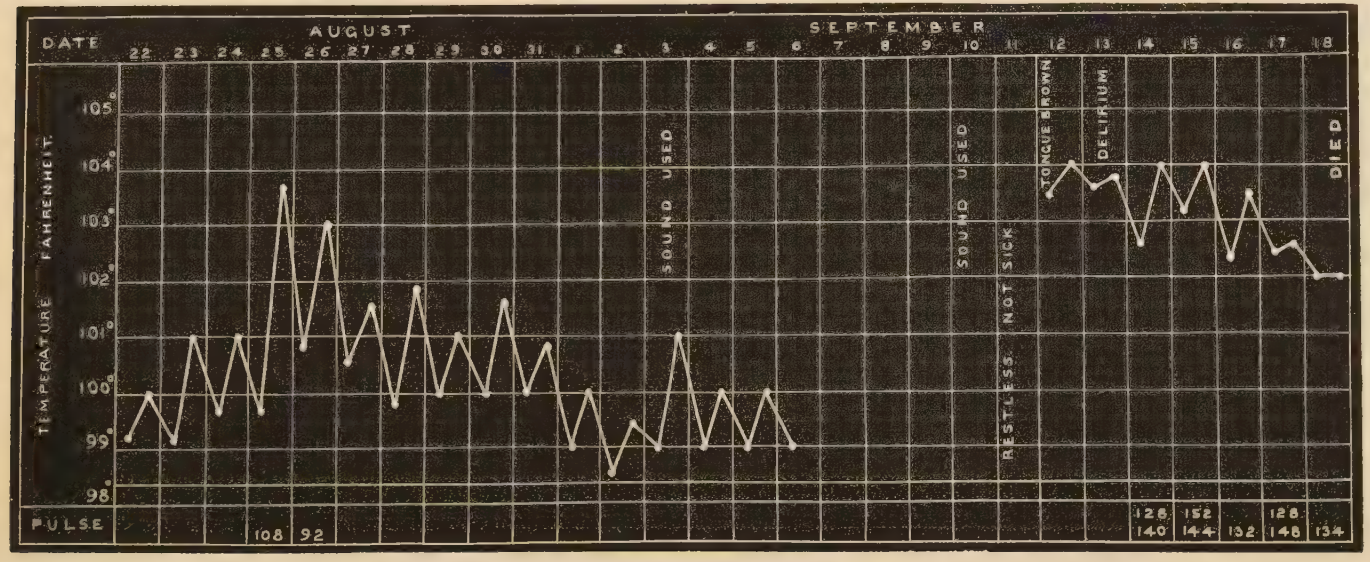
growth is evidently uterine, is freely moveable and tolerably painless to touch. The cervix uteri is displaced forward towards the pubes; from the open condition of the os it is possible to feel an elastic tumour growing from the posterior wall of the uterus and projecting into the cavity. A bruit is heard over the tumour. The sound passes for four inches.



Outline of tumour. Shaded part showing area of bruit.

The woman was kept under observation for a few weeks, during which time there was occasionally free hæmorrhage and a good deal of vomiting.

On August 25th there was some diarrhœa and the tongue was dry and fever present. (The temperature chart shows the extent of this.)


DATE
AUGUST
22 23 24 25 26 27 28 29 30 31
SEPTEMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
TEMPERATURE FAHRENHEIT.
105°
104°
103°
102°
101°
100°
99°
98°
SOUND USED
SOUND USED
RESTLESS. NOT SICK
TONGUE BROWN
DELIRIUM
DIED
PULSE
108 92
128 140
152 144
132
128 148
134

On September 3rd she was examined, and the sound used both in the uterus and the bladder; it was clear that the tumour was larger than on admission; no bad symptoms followed.

On September 10th she was again examined in consultation with a view to determine on operative procedure; the sound was introduced into the uterus, and the bladder examined as before. On the following day she was restles, hot, and sick. On the 12th the tongue was brown and dry, and vomiting was present. On the 13th delirium came on, and from the swollen and tender condition of the abdomen it seemed that peritonitis had supervened.

The patient died on the ninth day after the last sounding. It may be added that at the digital examination made at the same time the finger had a faint smell as if from decomposition of retained discharge, and, in addition to other remedies, the uterus was washed out with an antiseptic as soon as the unfavorable symptoms appeared.

Post-mortem.—This was made five hours after death. The body was anæmic and waxy in colour and appearance; post-mortem rigidity marked; subcutaneous fat fairly well represented. On opening the abdomen the uterus was seen to extend upwards as a whitened oval tumour to within an inch of the navel, being perfectly smooth on the surface and free from adhesion to any organ. The bladder (which is attached to the specimen) seemed perfectly healthy and free from abrasion of any kind, and was of normal size. The uterus, resembling with fair accuracy a duck set for table, was opened by a median incision along its anterior surface. The cavity was occupied with a well-formed healthy coagulum free from odour, the size and shape of a moderate herring, this shape depending upon the shape of the cavity of the uterus as modified by the growths present. Two rounded masses were seen attached to the posterior and left sides of the uterus, but chiefly to the posterior wall; on opening the lower of these it was seen to consist of fibro-gelatinous material,

with rounded fibroid masses throughout its substance. The contents of the cyst were intimately adherent to the walls throughout its circumference, and the fibroid bodies lay, some quite in the interior, others near the periphery, and adherent to the meshwork of the cyst. The upper tumour was solid throughout and consisted of the usual concentric layers of fibro-myomatous tissue. Both tumours appear to have been developed in the walls of the uterus. There was also a third tumour of small size in the anterior wall. The walls of the uterus were considerably hypertrophied, and both ovaries showed early cystic degeneration. Both kidneys were diseased, the capsule stripping off easily; in the cortex were seen numerous deposits tending to run together, and forming by their prolongations into the medulla conical-shaped areas of deposit, each such area being composed of individual millet-seed collections of pus. These conical areas projected on the surface of the kidney, but the capsule was not in any degree adherent to them. At one part of the left kidney a triangular whitish infarct was seen near the surface; both kidneys were equally congested. The spleen was enlarged and soft, several recent infarcts were present, all close to the surface. No infarction or purulent deposits were seen in the liver, which was anæmic and fatty. Lungs were œdematous and congested.

There was no trace of abrasion within the uterus, and no trace of peritonitis. It must be added that no examination of the veins was made.

The desire of the writer of this paper in submitting the specimen to the Society is to gain some information as to the mode in which this patient's death was brought about.

There can be little doubt that the visceral lesions found were of recent formation, and that there was a distinct commencement of the bad symptoms after the last sounding on September 10th, and that those symptoms may be summed up in the word blood-poisoning. If the instrumentation (which was by no means extraordinary) is to be

blamed, is it not a little strange that the lining membranes of the bladder and uterus remain perfectly healthy? It seems not unlikely, however, that there may have been some absorption of foul retained discharge through the open mouth of a vein, facilitated by the introduction of a sound into the uterus.

The specimen, lastly, seems to belong to that class of uterine tumours which presents fair opportunities to the surgeon for treatment by removal of the ovaries, for the condition to which the patient was reduced was certainly such as would have warranted interference had she not been brought to an untimely end.

A section showed the elevations on the surface of the kidney to consist of aggregations of leucocytes forming minute abscesses, whilst here and there were seen collections of micrococci at the periphery.

The conclusion arrived at was that the lesions were embolic and arose from putrefaction of retained discharges within the uterus. Whether the sound contributed to this the author is anxious to learn.

The PRESIDENT was afraid Dr. Lediard was not alone in his experience of the occasional mischief which followed the most careful use of the sound. As to its mode of action, he presumed that a very slight abrasion might be followed by septic absorption if unfortunately any septic products were at hand.

NOTE ON A CONDITION OBSERVED IN THE NAVEL CORD OF A YOUNG INFANT.

By John Williams, M.D., F.R.C.P.,
OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

The subject of the condition described in this note was a fine, well developed, healthy, male child, born at term. The cord was tied about three inches from the navel; it was stout and thick, but otherwise presented no unusual appearance. On the second day, however, the nurse called my attention to a condition which seemed to her unusual.

On examination I found the terminal two inches of the cord dry and shrivelled, while the proximal inch retained the fresh and succulent appearance it had at birth. To the finger, however, it felt firm and hard. During the third, fourth, and fifth days its surface softened, began to break down, and to emit an offensive odour; this was destroyed by powdering the part over with iodoform. There was slight bleeding on the fifth day, but the cord did not fall off until the ninth day after birth, and the somewhat conical stump then remaining presented an ash-grey, shreddy surface having a little red depression about the size of a pin's head at its apex. In fact, the root of the cord remained intact except a thin sheath, which sloughed from its surface. Its size had remained much the same except for the removal of this sheath.

At this time Sir James Paget saw the child with me, and it was thought advisable—should the mass remain—to treat it as the so-called wart of the umbilicus and remove it by ligature.

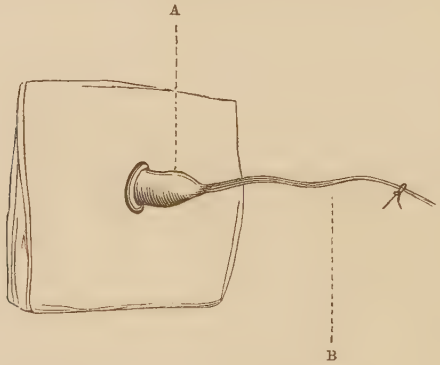
On the eleventh day it had diminished to about one half its original size, but it still presented the same ash-grey surface. Very little moisture oozed out of it. On the fourteenth day it had decreased to a quarter of its

original size, and on the following day it had disappeared altogether.

This appears to be the earliest condition of the so-called fungosity, wart, or excrescence of the umbilicus, seen in children up to the age of eight or ten years. In so far as I know it has not been observed before before the eighth day after birth.

Duges described the fungosity of the umbilicus in the 'Dict. de Méd.' in 1837. Mr. T. W. King published a case of great interest in a paper "On Fæculent Discharge at the Umbilicus," published in 'Guy's Hospital Reports' for 1843. The case was observed by Messrs. Parsons and Gunthorpe, and is as follows:

"In March, 1841, Mrs. L— was delivered of a fine healthy male infant. At the expiration of eight days I was called upon to examine the child in consequence of a fungus occupying the umbilicus and supposed to have been



produced by the nurse pulling at the remains of the funis, and which I also understood she had cut off close owing to its resisting her efforts to remove it. This fungus was removed in the course of a few days by caustic. The liquid contents of the alimentary canal then commenced oozing through an opening at the umbilicus; by degrees the discharge increased, being of various hues, attended by great emaciation."

After various plans of treatment the opening cicatrised, but the child died subsequently of thoracic disease. "On examining the abdomen, about a foot and a half from the cæcum a diverticulum, nearly five inches long, extended from the convexity of the ileum to the umbilicus, to which the extremity was firmly attached. The umbilicus without appeared pretty natural, excepting a little central spot of granulation as wide as a pea."

Simpson mentioned fungosities of the umbilicus ('Obstet. Memoirs,' 1856), and stated that they sometimes disappear without treatment. Athol Johnstone described them in his lectures on the "Surgery of Childhood," and pointed out that a probe could be passed into some of them for two or three inches, but that he had found it in no instance lead to the bladder or urine pass through it.

Kolaczek described these tumours in the 'Archiv f. Klin. Chirurgie,' Band 18, 1875, under the name of "Entero-Teratome." These presented glandular structures precisely similar to Lieberkühn's glands.

Küstner (Virchow's 'Archiv,' vol. 69) described two cases in which the growths presented a similar structure, and with a similar love for technical names called it an "adenoma." He had examined also ten other cases of fungosity which he found composed of granulation tissue, and he called this form "granuloma."

Féré has subsequently described two cases ('Le Progrès Médicale,' 1869); both were composed of embryonic or granulation tissue in earlier or more advanced stages of evolution. He called this structure sarcomatous—a very misleading appellation, for he appears to mean by it nothing more than granulation tissue.

Fæcal and urinary fistulæ have been found at the umbilicus, and in one case—mentioned above—the fæcal fistula was in a wart of the navel. These fistulæ were proved post mortem in King's cases to be the openings of the diverticulum ilii, the end of which had remained permanently fixed in the umbilical ring. Moreover, Ahlfeld has found remains of the umbilical vesicle or yolk-sac in the root of the navel

cord at term, so that the explanation of the presence of glandular tissue in these small growths is furnished by the case of King and the researches of Ahlfeld. I know of no case in which the wart of the umbilicus coexisted with a urinary fistula. Sir W. Bowman, in his case published in the thirty-third volume of the 'Medico-Chirurgical Transactions,' makes no mention of it. The subject of the fistula was, however, a grown-up person, and it is possible that had a wart been present it would have acquired the ordinary appearance of the skin of the umbilicus and attracted no special attention.

It is not known with certainty what becomes of these fungosities when left alone. Some of them disappear, as stated by Simpson and as occurred in my case. Many, however, remain for years as a vivid red painless growth in the depression of the umbilicus, causing a good deal of irritation by the secretion from their surface.

In other cases, again, the epithelium on their surface probably becomes horny, and the growth acquires the appearance of the neighbouring skin. Küstner, in one of the cases examined by him, found it covered with epidermis on the fourteenth day. He has also observed a wart-like growth on the umbilicus in two pregnant women. I have noticed this in several pregnant women; the growth was soft, of a darker colour than the surrounding skin, and seated on one side of the navel scar. These are probably the adult state of these fungosities when left without treatment. They are, however, usually removed by ligature or scissors. Küstner states that an artery runs in the adenoid form, and that it spurts when cut across. Astringents and even caustics have been tried. In some astringents have proved effectual, in others both astringents and caustics have failed. The ligature has, I believe, whenever tried proved effectual and free from danger, the growth falling off in from twenty-four to forty-eight hours after its application.

NOTE ON THE INVOLUTION OF THE PUERPERAL UTERUS IN THE ABSENCE OF THE OVARIES.

By John Williams, M.D., F.R.C.P.,
OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

Mrs. J— had her left ovary removed in 1879 for cystic disease.

On April 2nd, 1883, she was again admitted into University College Hospital and the right ovary was removed. She was at the time in labour with her fourth child. She recovered without fever or bad symptom. The temperature was 100·4° for several days. During the first days after labour observations could not be made on the uterus. On the 17th, fifteen days after the operation, the following note was taken:

The uterus is very large; it lies in the right iliac fossa and reaches to within a inch and a half of the costal cartilages; it is not tender. The cervix is high up and the body moves to the middle line when the woman lies on the left side. There is a slight thickening on the right side of the uterus where the right ovary was. The discharge has almost ceased; it has been white for the last two days.

On April 22nd the uterus was in the right iliac fossa and the fundus was three inches above the pubes; it was freely moveable. On the right of it in the ovarian region was some thickening which moved with it. There was no tenderness.

On vaginal examination the rectum was found full; the uterus was high up, anteverted; the os large, admitting the tip of the finger; two or three shallow fissures in the lips; no swelling felt in pelvis; no tenderness.

April 30th.—There was some thickening in the right iliac fossa, not tender; it was slightly moveable. The uterus was felt with difficulty above the pubes, possibly

owing to difficulty of palpation through the cicatrix. On vaginal examination the uterus was found in the normal position; the cervix in the centre of the pelvis; the body could be felt in front and behind the cervix. The os was slightly patulous, but did not admit the finger. The sound was introduced for four inches; the canal appeared to be straight from cervix to fundus; the inner orifice appeared to be contracted, but the cavity of the body was large. The uterus was quite as large as the organ usually is from the eighth to the twelfth day after delivery.

I saw her again on May 19th, nearly seven weeks after her confinement; the uterus was then not to be felt above the brim, but a small lump could be felt in the right ovarian region. This could be felt by palpation as well as on bimanual examination. The uterus was freely moveable; the sound could be passed three inches and the cavity was capacious. The uterus appeared to be about the size of the organ usually in the fourth week after delivery.

The next examination was made seven months and a fortnight after delivery. No swelling could be felt in the pelvis. The uterus was high up, smaller than the virgin organ, sharply anteflexed, freely moveable. The sound passed for two inches only. There was no trace of the lump on the right side.

In so far as we are justified in drawing a conclusion from a single observation it would appear that absence of the ovaries does not favour the puerperal involution of the uterus; on the other hand, it is not impossible that it proved in this case a means of retarding the process; for at the end of two months when the puerperal involution should have been completed the organ was as large as it usually is in the fourth week after delivery. It may, however, be urged that the interference with the peritoneum, and the changes which take place in the neighbourhood of the uterus during recovery after ovariotomy may have occasioned this retardation. On the other hand, during the six months which followed the puerperal period (counting

this as two months) the absence of the ovaries had exercised a marked influence ; for at the end of that time the uterus had become atrophied and had acquired the characters of an organ which had undergone senile atrophy.

The PRESIDENT, in remarking on the singular interest throughout of this case, could only come to the same conclusion as Dr. Williams himself, that the other conditions present, such as the right parametritis, might also have been influential in delaying normal involution.

Dr. CARTER was interested in that part of Dr. Williams's note in which he speaks of the superinvolution of the uterus. Cases of superinvolution after delivery at term are very rare, and without doubt there exists in such cases a premature atrophy of the ovaries, and this might be expected from the condition recorded in this note after the removal of the ovaries.

ON EXTENSIONS OR RETROFLEXIONS OF THE FŒTUS, ESPECIALLY OF THE TRUNK, DURING PREGNANCY.

By J. Matthews Duncan, M.D., F.R.S.,
AND
J. B. Hurry, M.B.,
MIDWIFERY ASSISTANT IN ST. BARTHOLOMEW'S HOSPITAL.

The following remarks refer exclusively to abnormal fœtal attitudes.

In the natural or normal attitude the trunk, head, limbs, and parts of limbs, are at all times moderately flexed. When there is persistent extension or retroflexion the condition is a morbid one.

It is probable, and consistent with all we at present know, that the cause of such extensions is, in almost every case, purely mechanical. Some minor extensions, however, may be the result of malformations not traceable to mechanical conditions. We refer especially to cases of talipes, though, even here, high authorities have maintained the mechanical theory. Thus Cruveilhier * describing a case of club-foot, of which we have copied his engraving (see Fig. 1), says: "In looking at the plate, one must feel convinced, without needing any further argument, that club-foot is solely due to mechanical causes, to a defective position, to a compression which prevents the deformed limb from developing in its natural direction." He goes on to say that the pressure referred to is that exerted by one part of the fœtus on another.

Most recent writers on the subject, however, are strongly opposed to the mechanical theory. Mr. Little † condemns it in the following forcible language:—"If it

* Cruveilhier, 'Anatomie Pathologique,' i, p. 7.

† Little, 'Holmes's System of Surgery,' vol. ii, p. 232. 2nd edit.

Fig. 1.

Extension of legs on thighs (after Cruveilhier).

be admitted that the external configuration of double club-foot may suggest to the unphysiological and unpathological observer the idea of one of the feet having overlapped the other in such manner that the uterus, supposing the liquor amnii to be deficient, has compressed the feet into the form in which we see them, this does not explain club-hands." Further, "Club-foot is met with in fœtuses of the fourth or fifth month, at which period the liquor amnii is relatively so abundant as to exclude the idea of uterine pressure consequent upon the supposed deficiency of fluid." Again, "Club-foot has been traced through four generations on the paternal side; if due to uterine causes, it could only be propagated through the female side. . . . The contraction * in congenital club-foot can only, we believe, be assigned to a preternaturally excitable or tonic condition of the muscular fibres of the shortened muscles."

Mr. Adams † takes a similar view.‡

* Little, 'Holmes's System of Surgery,' vol. ii, p. 228. 2nd edit.

† Adams, 'Club-foot and Contraction of the Fingers,' p. 177.

‡ On this subject see Parker and Shattock, 'Trans. Path. Soc.,' Lond., 1884,

In this paper we shall deal in order with extensions of the lower and upper extremities, and then with extensions of the head and trunk. Many cases, however, belong to more than one group.

Extension of the leg upon the thigh might no doubt occur in any lie of the child, that is whatever part is presenting, but we only know it as occurring in breech presentations.

We have a valuable memoir by Lefour* on this kind of pelvic presentation which he designates "Présentation du siège décomplétée, mode des fesses." The extension may persist during pregnancy, in which case, when the pelvic extremity of the fœtus enters the brim of the pelvis at the commencement of labour, the examining finger will feel the tubera ischiorum in the usual way, but the feet of the child will be quite out of reach instead of occupying the space between the thighs.

It is much commoner, however, for extension to occur during the course of labour, and perhaps, as Lefour suggests, by the feet hitching on the brim of the pelvis. The retrospective diagnosis after birth of these two varieties is, according to Lefour, easy. If the extension was present during the last days of pregnancy, the legs of the child will, after birth, remain perfectly extended on the thighs, as shown in his drawing (Fig. 2). If an attempt be made to flex the legs, they at once spring back to the extended position, and will continue to do so for some days. On the other hand, if the extension have been produced during labour, the child will, when born, assume the usual attitude with flexed limbs.

We reproduce Lefour's diagram (Fig. 2) and also an engraving after Cruveilhier,† in which extension of the thighs was associated with club-hands and club-feet (Fig. 1).

Mr. Shattock has described‡ a mature male fœtus, in

* Lefour, 'Contribution à l'étude des présentations du siège décomplétée, mode des fesses,' Paris, 1882.

† Cruveilhier, 'Anatomie Pathol.,' tome i, livraison ii, planche ii.

‡ 'Pathological Transactions,' xxxiii, p. 240.

Fig. 2

Extension of legs on thighs (after Lefour).

which the thighs did not admit of extension, but the knee-joints admitted of abnormal over-extension but not of proper flexion. Dissection showed that the restricted movement was due to abnormal shortness of certain ligaments, while others were unusually relaxed where over-extension was possible.

It is only in this position, with extended legs, that permanent extension of the legs is possible, there being no room in the uterus for extension of the leg with extension of the thigh: and extension of the thigh, uncomplicated, is unknown.

We have no account of any primitive knee presentation. Spiegelberg* says it never occurs. Cases in which extension of the thigh accompanies retroflexion or extension of the whole fœtus will presently be described.

Extension of the forearm alone does not, as far as we know, occur as a morbid condition. It is, however, recognised that the flexed position is maintained in a much less constant manner than the corresponding condition of the legs.

When we remember the relations of arms and legs to the rest of the fœtal mass, it is plain that there is much less room for extension of the leg than for a corresponding extension of the forearm. Extension of the leg is soon

* 'Geburtshülfe,' ii ed., p. 141.

arrested by the uterine wall, while that of the forearm may take place unrestricted.

Cases of extension of the whole arm (including the forearm) are very rare. The best example we know is that of Dr. Milne Murray* to whom we are indebted for the accompanying figure (Fig. 3). In his case the exten-

Fig. 3.

Extension of arms (after Murray).

sion of the arms was accompanied by displacement backwards, and also by extension of the head producing primitive presentation of the face. "Pressure over the pubes," says Dr. Murray, "enabled me to feel the head indistinctly. It had not engaged and could be moved about through the abdominal wall. . . The vagina, moist and roomy, was two thirds filled with a tense projecting bag of membranes. Beyond this the fully dilated os could be made out, and by carefully passing the finger through the os on the right side of the projecting bag, the tip passed straight into the mouth of the child. The other parts of the face could be made out with perfect ease."

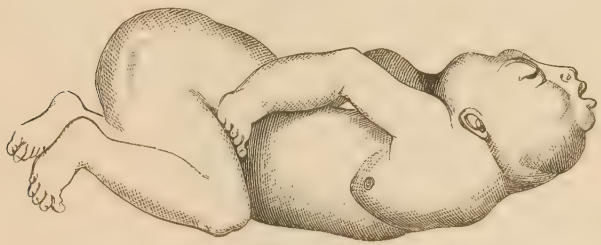
* 'Edinb. Med. Journal,' April, 1882.

Describing the artificial delivery of the child, he says, "When the back of the child appeared it was found that both arms were lying upon it as nearly as possible parallel to each other and close together." . . "I allowed it," he adds, "to remain in this position for some few seconds until the others had an opportunity of seeing the condition, and then withdrew the body."

Ahlfeld has described a case of extension of the arms associated with that of the head, in which the extension was due to distension of the bladder. We shall describe it when we come to deal with primitive face presentation.

Another case is figured by him,* in which extension of the arms accompanies extension of the head in an anence-

FIG. 4.



Extension of arms in an anencephalic fœtus (after Ahlfeld).

phalic fœtus (Fig. 4). It will be observed that in each of the cases in which the arms are extended there is also extension of the head. We may associate this with the fact that in adults, when the shoulders and arms are thrown back, the neck is at the same time extended.

We now pass on to extensions of the head. That there occur cases of primitive not secondary presentation of the forehead and of the face, as the result of abnormal fœtal attitude, has been well attested. We have not seen an example, but there are conditions in which it must occur if the presentation is cranial.†

* 'Missbildungen,' plate xlviii, 19.

† Cf. Ahlfeld, 'Die Enstehung der Stirn und Gesichtslagen,' Leipzig, 1873.

We here show a specimen of a fœtus* affected with a large goitre (Fig. 5) which produces extension of its head, —indeed, the head cannot be flexed. During labour it presented the face. The mother, æt. 33, was under the care of Mr. Cathcart, of Tottenham. She had previously had two unsuccessful pregnancies and two children, and has had three other healthy pregnancies and children since.

Fig. 5.

Extension of the head produced by goitre.

In this confinement she had twins and hydramnios ; labour was easy ; the goitrous child presented the face ; both children were males and died a few hours after birth. This is the " struma congenita " of older authors, and the presentation of the face may be due to it or to any other similarly placed swelling, whether belonging to the neck or to the upper part of the thorax. Simpson† mentions cases of goitre producing forehead presentation, but for details of these and other similarly-placed tumours, we must refer to his paper.

Dr. Halliday Croom ‡ has published an interesting case

* Now in the Museum of St. Bartholomew's Hospital.

† 'Selected Obstetrical and Gynæcological Works,' p. 127, "On Intra-uterine Goitre or Bronchocele."

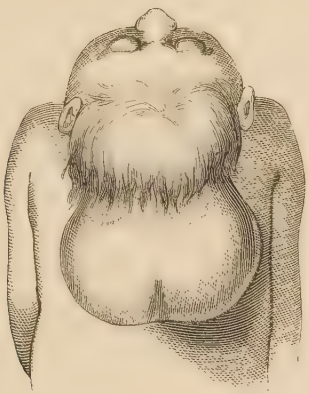
‡ 'Edinburgh Med. Journal,' vol. xxv, p. 709.

of primitive face presentation due to tonic contraction of the muscles at the back of the neck. The abnormal presentation was discovered three weeks before labour set in, and after the birth of the child its head retained the position of extension in a diminishing degree for over a month.

We must not omit to mention those modified face presentations which occur in cases of hemicephalous or anencephalous fœtus and which arise from the conditions of that malformation. These are of two kinds; in one there is malformation of the upper part of the cervical vertebræ (spina bifida) as well as deficiency in the ossification of the posterior part of the cranium, and the face presentation is primary; in the other the malformation is confined to the back part of the cranium, and no spina bifida exists. In these cases the face presentation is secondary. For details of great interest bearing on these points we must refer to Ahlfeld.*

The accompanying woodcut (Fig. 6) is taken from

Fig. 6.



Extension of the head in an anencephalic fœtus (after Vrolik).

* Ahlfeld, 'Missbildungen,' p. 285; cf. also 'Archiv für Gynækologie,' vol. xii, p. 159.

Vrolik* and shows the characteristic attitude of an anencephalous fœtus.

Ahlfeld† has suggested the possibitity of extension of the head being produced by numerous and large convolutions of the cord around the neck, but he cites no example; and face or forehead presentation has not, so far as we know, been noted in actual cases of numerous turns of the cord round the neck. Simpson‡ suggests that the hands and arms when placed in the anterior hollow of the neck may have a like effect.

Face cases may also occur as a result of shortness of the cord, but though this cause is mentioned by authors and is to some extent easily understood, we know of no actual recorded instance to which to refer.

In Dr. Milne Murray's§ case of extension of the arms, it is natural to refer, as he does, the face presentation to the displacement of the arms as its primary cause; for, while it would force the sternum forwards, a bay or space would be produced at the back of the neck between the shoulders for the reception of the occiput of the extended head. The presentation of the face in Murray's case and the extension of the arms may, however, own a common cause; and this view is suggested by the observation of Ahlfeld,‖ of which we now give some particulars (Fig. 7). "A case," says he, "which I observed this summer, showed us the possibility that the replete bladder by pressure on the back of the fœtus may produce an attitude of the child which under favorable circumstances may become a complete forehead presentation."

In this case pains commenced on the 24th of July, and from that time till the 28th there was no emptying of the bladder or of the rectum. A tumour appeared below the navel on the right side about the size of half a man's

* Vrolik, 'Tabulæ ad illustrandam embryogenesin,' pl. xliii, 4.

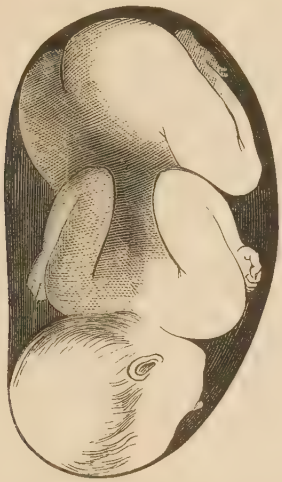
† 'Die Enstehung der Stirn und Gesichtslagen,' Leipzig, 1873, p. 7.

‡ Loc. cit.

§ Loc. cit.

‖ Loc. cit.

FIG. 7.



Extension of the head, arms, and trunk due to distension of the bladder (after Ahlfeld).

head, being the distended bladder. He delivered by forceps, the head being in the outlet of the pelvis. The arms were extended, being placed on the back of the child. "The production," adds he, "of this abnormal condition seems explained as follows:—The primary cause was closure of the bladder. This may have been produced by pressure of the fœtus itself. . . . . If the abdominal wall had been relaxed the bladder would have developed itself to one or both sides and forwards. But as it was very tight, and as the shoulders lying over the pelvic inlet in the right oblique diameter prevented enlargement toward the left side, urine accumulated in the right anterior hypogastric region. At any rate the difficulty which the bladder encountered in further enlargement in this direction must have been so great that the accumulating fluid had to push aside the body of the child. Generally when the head stands high, it is in such circumstances pushed into an iliac fossa, and in this way transverse presentations are produced. Here, however, the head

being already fixed deeply in the inlet of the pelvis, perhaps even within the pelvic excavation, the thorax of the child was pushed backwards and to the left, so far indeed that the breech, which was high up on the left at the edge of the ribs, hindered by the displacement, could not advance. Thus there was produced an S-shaped curvature of the fœtal axis, whose under part was in the pelvic excavation, the middle part in the upper or false pelvis with a concave curvature looking forwards and to the right, the upper part with a concave curvature looking to the left and posteriorly in the left upper part of the belly. After emptying the bladder the fœtus maintained the abnormal attitude. The space in the curvature of the back made empty by removal of the urine was again filled up and this could of course only be done by moveable parts of the uterine contents, as air, liquor amnii, meconium, and the arms. During and after the passage of the child through the pelvic outlet, it continued to maintain its abnormal attitude."

Ahlfeld* has given some drawings where extension of the head accompanies agnathy, and for details we refer to his work.

It is suggested by authors of great repute that primitive presentation of the face may occur in cases which are in other respects quite normal, but it appears to us unreasonable to admit this until it has been demonstrated by a good observation. If such cases did occur, we should expect the child to have for a time, if not permanently, an extended head,—extension such as is seen in breech cases with primitive extension of the legs on the thighs (mode des fesses). Instances of temporary extension have indeed been mentioned by various authors,† but as we are not informed whether the labour was in other respects normal no argument can be based on the observations.

* 'Missbildungen,' pl. xxviii.

† Joulin, 'Accouchements,' p. 549. Lachapelle, 'Traité des Accouchements,' vol. i, p. 376.

Fig. 8.

Extension due to convolutions of the cord (after Hörder).

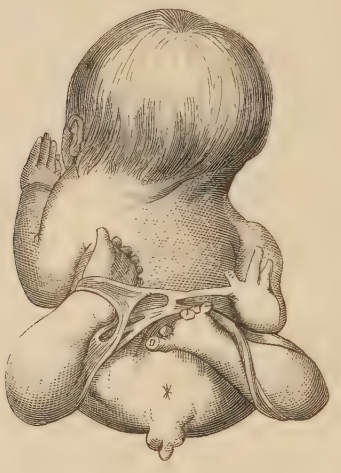
A curious case of extension of the trunk, legs, and right arm produced by turns of the cord is depicted by Hörder.* It occurred in a mummified fœtus of about the sixth month. (Cf. Fig 8.)

The grandest cases of extension or retroflexion of the fœtus are produced by those bands which are generally called amniotic and by that kind of protrusion of the viscera in which there is either a short, or no true, cord, the anterior wall of the belly being formed by the placenta or the membranes or both.

The following is a description of a specimen of retroflexion, produced by the first of these causes, which Dr. Matthews Duncan has placed in the Museum of St. Bartholomew's Hospital (Fig. 9). In it, the cause of the extension no doubt dates from the early weeks of embryonic life and it will be observed that the so-called amniotic bands, of which the specimen is an excellent example, consisted of true skin, a point of great interest in connection with the fact which is now well established,

* 'Archiv für Gynækologie,' xi, p. 364.

Fig. 9.



Extension due to amniotic bands.

that the amnion is developed from the somato-pleura, *i. e.* contains both epiblastic and mesoblastic elements, and is not merely an epidermal structure. For details on this point we must refer to L. Fürst.*

We quote the words of Mr. Bowlby, Curator of the Museum, to whom we owe the minute investigation of the structure of the retaining cords.

Specimen 3059 *in St. Bartholomew's Hospital Museum.*—"A male fœtus born at term; the head is very large, and although slightly hydrocephalic, does not owe its size entirely or even chiefly to this cause, the shape of the head being very different from that usually met with in cases of hydrocephalus, and the bones themselves being much larger than is usual in a newly-born child. The trunk is apparently normal, but all the extremities and the head are doubled backwards towards the spine, a condition which is apparently due to the tension of the skin and to certain integumental bands, which microscopical

* 'Archiv für Gynækologie,' ii, p. 315. Cf. also Foster and Balfour, 'Embryology,' p. 40.

examination shows to consist of true skin. The neck is very short, thick, and shapeless, a broad fold of skin passing directly from the dorsal region to the head and holding the latter in a hyperextended position. Both arms are bent backwards on the trunk, and held in this position by tightly-stretched integument which passes uninterruptedly from the scapular region to the dorsal surface of the upper arm, and on the left side is prolonged directly on to the forearm, which is thus held in a state of flexion, but is otherwise normal. The right forearm is extended on the arm, the radius is absent, and the hand dislocated backwards; only three digits are present in this extremity, the deficiency apparently consisting in the absence of the thumb and index finger. From the radial side of this hand, a band of integument extends five inches in length and about one eighth of an inch in width, attached at its other extremity by four processes, one to the skin over the sacrum, a second to the inner side of the left thigh, the remaining two to the outer margin of the left foot. The pelvis appears to be tilted backwards at its junction with the spinal column. The thighs are hyperextended, abducted and rotated outwards, being held in this position by bands of integument passing between them and the loins. The left leg is flexed and rotated outwards so that the back of the foot is in contact with the skin of the gluteal region; a broad band of integument extending from over the sacrum to the popliteal space maintains the deformity. The right leg is flexed on the thigh, and the foot placed in the position of extreme talipes equinus, so that the sole of the foot lies in contact with the right buttock. The toes are natural in number, but the second and third are separated from each other by a wide interval. From the inner side of the knee-joint there passes an integumental band five inches in length dividing at its other extremity into two processes which encircle the foot, to the outer side and sole of which they are attached." We believe this specimen to be unique of its kind.

The retroflexion associated with protrusion of the viscera

from the abdomen, in its extreme form, causes the fœtus to be completely doubled backwards upon itself.

This is the case in a specimen in University College Museum which we were enabled to examine through the kindness of the Curator, Mr. Shattock. In it, the lower part of the spinal column with the legs is directly, and so acutely, retroflected that the feet lie close to the occiput. A large opening exists at and below the usual situation of the navel, through which some of the viscera protrude. No vestige of a cord exists, but the placenta forms part of a large sac in which the extruded viscera lie. The blood-vessels, natural in number, run for about three inches between the membranes before reaching the placenta. The situation of the placenta is median as regards the fœtus. The extremities of the latter are well formed.

As illustrations of this deformity we give two figures, one after A. R. Simpson* (Fig. 10) and the other after Vrolik† (Fig. 11). They show what is almost a constant feature in these cases, namely that some latero-flexion accompanies the retroflexion; indeed, the specimen in University College Museum is the only case of pure retroflexion we know of.

This distortion of the spinal column is always associated with protrusion of more or less of the solid abdominal viscera, and generally the converse is also true, namely, that when the abdominal organs lie outside the body, the spinal column is distorted.‡

Other points in the anatomy are the following, but for details we must refer to original§ descriptions.

The walls of the sac, in which lie the extruded viscera, are formed by the usual fœtal membranes, and in its formation the placenta frequently takes part. The umbi-

* 'Edinburgh Medical Journal,' April, 1882.

† Vrolik, loc. cit.

‡ Houel, 'Catalogue du Musée Dupuytren,' tome iv, p. 291.

§ Breschet, 'Medico-Chir. Trans.,' 1818, vol. iv, p. 433. Ahlfeld, 'Missbildungen.' Ahlfeld, 'Archiv für Gynækologie,' xi, p. 89. Parson, 'Lancet,' March 17, 1866.

FIG. 10.

Retroflexed fœtus (after A. R. Simpson).

FIG. 11.

Retroflexed fœtus (after Vrolik).

lical cord, as a rule, is absent or very short. It may, however, be of natural length,* at any rate, in cases of protrusion of the viscera with which, as we have seen, spinal distortion is so frequently associated. When the cord is absent, the blood-vessels, often modified in number and without any of the usual twists, run between the membranes. Spina bifida is often present, and the extremities are liable to be malformed.†

As regards the influence of this kind of extension on labour we know little. Dr. Parson‡ records a case in which the child was retroflexed so that the soles of the feet rested just under the occiput; hernia and ectopia viscerum and spina bifida were present, but labour was easy. In other cases (*e. g.* Simpson's),§ the abdominal viscera presented and there was dystocia. Dr. Herman has kindly given us notes of a case which occurred in the London Hospital a short time ago. The fœtus, which was the result of an abortion, measured 23·4 cm. (nine inches) in length; its body was extended backwards and to the left, so that the left knee and elbow were in contact. The length of the cord was 12·5 cm. (five inches). The child presented transversely with the right side downwards. The distortion was associated with protrusion of the liver and intestines into an abdominal sac.

Of the seat of flexion we have little accurate information; in most cases it appears to be low down in the lumbar region; a fact we may associate with the well-known weakness of the column at that part and with its later development than the cervical and dorsal regions.

In Breschet's case,‖ the flexion was lower down. "The right os ischium," he says, "was articulated with the sacrum and strongly turned backwards; that on the

* Houel, 'Société de Biologie,' iv, 1858, p. 55.

† Breschet, 'Medico-Chir. Trans.,' ix, p. 433. 'Catalogue du Musée Dupuytren,' iv, No. 218.

‡ 'Lancet,' March 17, 1866.

§ 'Edinburgh Medical Journal,' April, 1882.

‖ Loc. cit.

left side was separated from the former near the pubes, but not retroverted. The whole of the left limb was carried backwards, but the femur was articulated with the cotyloid cavity." In Dr. Craigie's* case the flexion must have been high up in the column, inasmuch as the lumbar vertebræ were brought into relation with the base of the skull. The lateral flexion appears equally common on both sides.

The cause of this deformity has not been satisfactorily explained. Vrolik† describing the specimen which we have copied from his book says: "It is important to notice the distortion of the spinal column by which the heels come to be applied to the occiput and which appears to result from the tension which, owing to the want of an anterior abdominal and thoracic wall, the viscera exert on the spinal column in consequence of their weight." It is hardly possible, however, that the mere displacement of the viscera, floating as they do in the liquor amnii, could produce a deformity as great as this is. Nor can we allow the deficiency of an anterior abdominal wall to be an explanation, at any rate until it has been demonstrated that the spinal column has a natural tendency to bend backwards. On the contrary, among all the higher organisms the tendency is to a flexion on the hæmal as opposed to the neural side, and a positive force must be at work where this law is reversed.

Houel‡ gives a better explanation of those cases of spinal curvature which are associated with protrusion of the abdominal organs and shortness of the cord. "The shortness of the cord," he says, "keeps the fœtus in contact with its membranes. By means of the tension thus exerted it causes a distortion of the spinal column. This distortion, in bending the trunk to an unnatural degree, diminishes the size of the thoracic and abdominal cavities to such an extent that the viscera can no longer

* 'Edinburgh Medical Journal,' March, 1883.

† 'Tabulæ ad illustrandam embryogenesin,' note on plates xxi, xxii.

‡ Houel, 'Société de Biologie,' 1858, iv, p. 55.

find room in them." But in many cases of extreme retroflexion, the placenta is adherent to and forms part of the anterior wall of the fœtus.* No vestige of an umbilical cord is present.† These cases we explain as follows : The abdomen of the fœtus is firmly held by its attachment to the placenta in the egg-shaped cavity of the uterus. The two ends of the fœtal mass, cephalic and pelvic, are pushed backwards for want of room and flexion is on the fixed point, namely, the placenta forming the anterior abdominal fœtal wall. When the placenta is median as regards the fœtus, retroflexion is direct, that is without latero-flexion. On the other hand the further the attachment of the placenta is from the median line the greater will be the latero-flexion.

In those cases where a cord is present, it is usually very short‡ and the same explanation holds good; the anterior wall of the fœtal abdomen is held by the taut cord close to the uterine wall, and the fœtus must grow in a retroflexed attitude; it cannot get room for its ordinary flexed attitude.

When the cord is of natural length, as Houel says it may be, there may have been twists round the neck of the child so as to make it practically a short cord. In the absence of information we cannot decide the point.

In another class of cases the deformity is due to bands passing from one part of the fœtus to another.

This is undoubtedly the explanation in the case described above, now in the Museum of St. Bartholomew's Hospital. In the case of Drs. Oswald§ and Routh, "a membrane attached to the cord and adjoining the free edge of the

* Ahlfeld, 'Missbildungen,' p. 215. "Besonders häufig sehen wir diese grossen Spaltbildungen bei Verwachsungen der Placenta mit der Bauchspalte folgen."

† 'Lancet,' March 17, 1866. Breschet, 'Medico-Chir. Trans.,' ix, p. 433.

‡ Six inches in Houel's case, 4½ inches in Vrolik's, 5 inches in Dr. Herman's case. Ahlfeld, 'Missbildungen,' p. 202, says, "In cases of hernia viscerum at the navel, the cord is, as a rule, very short."

§ 'Obstetrical Society's Tranasctions,' April, 1882.

abdomen was attached at the lower end to the membrane of the brain where the parietal suture ought to be." This may have been, but we are not informed whether it was or not, the cause of the latero-posterior spinal curvature which was present.

Naegele* refers to a case of Jörg in which the child was doubled backwards, and adhesions between the layers of skin in contact with one another had taken place.

"The shoulders of the fœtus had become adherent with the skin in the neighbourhood of the lumbar and sacral vertebræ. In consequence of this, the thighs and the head lay close together and in the same direction.

"The upper portion of the trunk, therefore, had been retroflexed, and had become connected superficially (*i.e.* with the skin) with the lower half."

The PRESIDENT in thanking the authors for their novel, interesting, and suggestive paper, remarked on some of the especial points of interest connected with the various drawings and specimens, and drew from the whole the conclusion that much additional light had been thrown on the etiology of face presentations by these illustrations of fœtal displacements.

Dr. CHAMPNEYS said that the only variety that he had himself observed was the "siège décomplété" (Lefour). In this, when primary, the legs after birth at once resume the fœtal attitude, and fly up over the shoulders in a most striking manner.

* 'Geburtshülfe,' 5te Auflage, S. 610.

OCTOBER 8TH, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—46 Fellows and 4 visitors.

Books were presented by Dr. Bantock, Dr. Fletcher Beach, Mr. Alban Doran, Dr. Henry Fly Smith, Mr. E. Cunliffe-Owen, Dr. Olshausen, Dr. Valenta, the Council of University College, and the Middlesex Hospital Staff.

John Hopkins, L.R.C.P. Ed., and John D. Malcolm, M.B., C.M., were admitted Fellows of the Society.

Charles H. Deake, M.R.C.S. (Brixton Hill), Edward Charles Maynard, M.R.C.S. (Folkestone), Thomas Horrocks Openshaw, M.B. (Poplar), Luke Robinson, M.R.C.P. (San Francisco), George Frederick Rossiter, M.B. (Weston-super-Mare), Druce J. Slater, M.B. (Putney), Charles J. Stansby, M.D. (Bermuda), Edward W. F. Stiven, M.D. (Harrow), and Alexander Waugh, L.R.C.P. (Midsomer-Norton), were declared admitted.

The following gentlemen were proposed for election :— Robert W. S. Barraclough, M.D. (Herne Hill), Alexander Ford, L.R.C.P. Ed. (Harrogate), Harry John Forster, L.R.C.S.I., Walter Greene, L.R.C.P. Lond. (Wallingford), George Knapton, L.R.C.P. Ed. (Southampton), Henry Ambrose Lediard, M.D. (Carlisle), James Murray Smith, M.B., C.M. (Romford), Edmond Sinclair Stevenson, L.R.C.P. Ed. (Cape of Good Hope), and James Troutbeck, M.B. (Bushey Heath).

BROAD LIGAMENT CYSTS.

Dr. Malins exhibited two cysts of the broad ligament removed on September 27th from a patient, æt. 36, single. About nine months' history with few symptoms. The right one was enucleated, the left one partially so, and tied where adherent; each contained about ten ounces of thick fluid like tar. A drainage-tube was used. Good recovery.

PYOSALPINX.

Dr. Malins also showed ovaries and tubes from a case of pyosalpinx of left side, removed on September 17th. Patient, æt. 39, married, five children. History of chronic ovarian inflammation for several years. Left tube thickened, dilated, filled with pus, intimately adherent with ovary; left ovary and tube adherent and thickened. Good recovery.

FIBRO-CELLULAR TUMOUR OF LABIUM.

Dr. Potter showed a fibro-cellular tumour removed from a patient in the Westminster Hospital early in August. Her age was thirty-three, and she had been married eleven years. Shortly after her marriage she noticed a lump on one side and in front of the vulva, the site of a kick received some time previously; this soon got to its present size. It was attached by a broad base to the upper part of the vulva, involving the clitoris and labia minora. It was of firm consistency, and about the size of a fœtal head at term; its lower portion was sloughing, and gave rise to an offensive discharge. There was difficulty in micturition. The remarkable point in the case was that

the patient declared it had caused her no inconvenience or pain till she submitted herself to treatment. It was only owing to the soreness and offensive discharge of the last fortnight that she had taken notice of it. The tumour was easily and with very little bleeding removed by the chain écraseur; two or three small vessels had to be ligatured, and some points touched with the actual cautery. The mass weighed twenty-two ounces and three quarters. Patient made a good recovery.

OVARIAN TUMOUR.

Dr. William Duncan showed a multilocular ovarian tumour, with numerous intra-cystic growths, which he removed from a patient who was sent to him as a case of extra-uterine gestation. The woman, æt. 27, noticed the enlargement for five months before admission; during this time there was cessation of catamenia, with morning sickness, &c.

Dr. Malins remarked that it was not uncommon to meet with the difficulty in diagnosis described by Dr. W. A. Duncan. He had that day seen a patient from whom he had taken an ovarian tumour, thirty-three pounds weight, five weeks ago, the early history of which was confounded with pregnancy and extra-uterine pregnancy.

UTERINE CYST.

Mr. Walter Griffith showed a specimen as to which he was unable to state definitely whether it was a primary cyst in a uterus, or a cyst developed in a myoma of the uterus; it was certainly not the comparatively common form due to myxomatous degeneration of a fibroid. The specimen

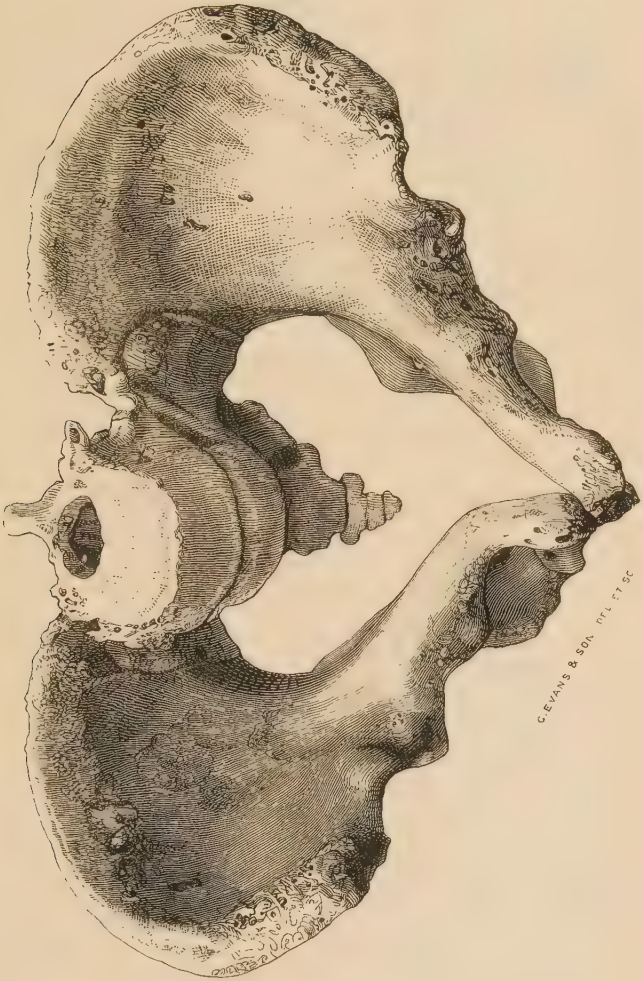
was obtained from a patient who had been under the care of Professor Humphry at Cambridge, suffering from frequent attacks of severe menorrhagia, the tumour being diagnosed as a soft fibroid. After her death it was removed, and the specimen was seen to consist of a large uterus with a unilocular cyst, which must have held several pints of fluid, occupying the fundus and projecting into the much enlarged cavity of the uterus. Its walls were about half an inch in thickness and lined internally with a thick, easily recognised, but firmly attached transparent membrane. Microscopically the membrane was found to consist of embryonic connective tissue, and it was probably lined with endothelium. Cysts lined by endothelium and believed to be lymphatic in origin were described by Leopold and Fehling in the 'Arch. für Gyn.,' Band vii, S. 531.

Mr. Doran believed that the specimen was an instance of a cyst forming in the uterine walls, and not of cystic degeneration of a myoma. It was true that cysts did form from the softening of the tissues in a myoma, but such cysts had a smooth lining of endothelium immediately covering the solid tissue of the tumour, and never possessed a thick and distinct wall as in Mr. Griffiths' case. It was very unfortunate that this specimen was mutilated, so that the relations of the cyst to the Fallopian tubes and other structures could not be determined. Several German pathologists, more especially Coblenz, claim to have traced the origin of solitary uterine cysts to a dilatation of Gartner's duct, the efferent canal of the Wolffian body. This duct naturally passed through the wall of the uterus in its downward course. In a case of bilateral cystic disease of the broad ligament Mr. Doran had found two cysts partly in the substance of the uterus.

MOLLITIES OSSIUM.

Mr. Griffith also showed a pelvis much deformed by mollities ossium, the left innominate bone being less affected by the disease was consequently much less

deformed than the right. It was taken from a patient who died at the age of sixty-seven in the Camberwell



Workhouse, but of whose history no further information could be obtained. (The engraving is from a photograph kindly taken by Mr. Reece.)

GLASS INJECTION-TUBE.

Dr. Barnes exhibited a glass tube for injecting the uterus with hot water or perchloride of iron. It was channelled on one side so that the fluid injected easily escaped from the uterine cavity. The model was that of Professor Neugebauer of Warsaw. Dr. Barnes also exhibited a glass female catheter. Its advantage was its perfect cleanliness.

Dr. Fancourt Barnes remarked that glass syringes had been used by Dr. Macan, in the Rotunda Hospital, for intra-uterine injections for more than a year.

ON POST-PARTUM AVULSION OF THE UTERUS, WITH A CASE, FOLLOWED BY RECOVERY.

By J. Hopkins Walters, M.R.C.S.,
SENIOR ASSISTANT SURGEON TO THE ROYAL BERKSHIRE HOSPITAL, READING.

On the 19th of April, 1882, I received a letter from my friend, Mr. Cockran, of Caversham, who wrote: "I had a case last night which I think you would much like to see. A woman was attended by a midwife, and in attempting to remove a retained placenta, she tore the uterus, with the lateral ligaments of one side, quite away, leaving about four inches of omentum hanging from the vagina. The uterus, with some lumps of adipose tissue torn from the omentum, is saved for your inspection. The woman had hæmorrhage to a considerable extent, and I thought she was on the point of death when I left her last night."

In consultation with Mr. Cockran, twenty one hours after the accident, I saw the patient, Mrs. Emily Marcham of Dunsden Green, aged twenty two, third confinement. She had been delivered of a male child at about 9 o'clock on the previous evening, after a natural labour of twenty-two hours, being attended by a Mrs. Waite. She was a frail-looking little woman, extremely pale, with blanched lips, and had evidently suffered from severe loss of blood.

She described herself as feeling pretty comfortable except for slight pain in the lower part of her abdomen.

She was under the influence of opium, which Mr. Cockran had given her; the pulse was weak but regular, about 120 to the minute, and the temperature apparently normal. Her abdomen was flat, and tender on pressure; and from the vulva protruded about fourteen inches of omentum, on

which she was lying; and on following it back I found that it came through the upper part of the vagina, in which was an enormous rent, deepest posteriorly.

No uterus could be felt. I passed a catheter into the bladder, from which came some six ounces of clear urine. The omentum had become bruised and its fat cold and solidified. A discharge of blood-stained serum flowed slowly from the vagina.

Mr. Cockran told me that when first called in he had twice replaced the omentum, which, however, immediately returned.

Considering that further interference would be dangerous, I ligatured the omentum in five successive portions at the level of the vulva, and cut away the protruding piece. There was no hæmorrhage. I made no attempt to replace the omental stump, as the large tear seemed to make its retention hopeless, and I feared both the recurrence of hæmorrhage and also the introduction of the vaginal discharge into the peritoneal cavity, syringing or irrigating the vagina being out of the question.

The patient was well under the influence of opium, which I recommended to be kept up. She had taken some light food and had no sickness, so I ordered her six pints of milk and two of beef tea, in small quantities, every twenty four hours if she could take it; and directed that the catheter should be passed every eight hours.

April 20th.—Visited the patient with Mr. Cockran in the afternoon. Found her looking fairly well, free from pain, pulse 114, skin natural, and temperature normal to the hand. The thermometer was not used yesterday nor to-day in order to avoid, as much as possible, disturbing the patient. She had slept well, taken her milk and beef tea freely; had been sick once, which she said was caused by eructation of wind immediately after drinking some milk, of which she only brought up a mouthful.

The omentum had retracted within the vulva; just the end of the stump could be seen on pulling up the buttock. A slight semi-purulent, inodorous discharge issued from

the vagina. She complained of flatulence, had little pain while quiet, but it hurt her to turn over.

She was lying on her right side with her legs extended; her abdomen was rather distended, and tender on pressure in the iliac regions; the left side was very resonant on percussion, while the right (the lower) was dull, and there was a suspicion of fluctuation. I placed her in charge of a hospital nurse, and ordered her opiate and diet to be continued; the vulva to be washed with solution of permanganate of potash, and then kept covered with salicylated wool. The breasts to be smeared with extract of belladonna and glycerine.

21st.—Is much the same as yesterday; has slept quietly for several hours, and taken her nourishment well. Pulse 114. Evening temperature 98. Tenderness at the lower part of abdomen rather greater, but there is no increased distension, and lying on her right side, as yesterday, the line of dulness has descended one and a half inches. The discharge from the vagina is free, blood-tinged and odourless. Breasts not filling. Says she is comfortable. To continue as before.

22nd.—Condition continues satisfactory. Pulse 110. Temperature: M. 97·8, E. 99. Passed a good night and says she feels better, but her aspect is not so good, although no cause for this is apparent. Vaginal discharge the same. Breasts contain no milk, is not sick and can take her milk and beef tea freely. Occasionally passes flatus per anum which causes her much pain. Abdominal tenderness about the same, but the percussion dulness again reaches the middle of the abdomen. She has been each time I have seen her, except the first day, lying on her right side, but she can lie on either, or on her back, with equal comfort, and does not draw up her knees. No alteration in diet or treatment.

23rd.—To all appearances the same as yesterday. Morning temperature has risen to 99·8°. About 1 p.m. she was suddenly seized with shivering and violent pain in the lower part of the abdomen.

I saw her at 6 p.m. and found her with pinched features, considerable abdominal tenderness, cold extremities, temperature 97·4° and a pulse of 170. She had been sick once and thought it was caused by wind. The discharge from the vagina had become very offensive.

For the first time since the evening I was first called to her, I made a vaginal examination and found the rent had contracted closely round the prolapsed omentum, which, having been moulded by the pressure of the vaginal walls, felt like a solid mass, but was not swollen and evidently not constricted. There was abundant offensive purulent discharge.

I immediately irrigated the vagina, by means of a funnel and flexible tube, with a solution of permanganate of potash, and, as that caused no pain, followed it with a solution (1 to 60) of carbolic acid. So desperate seemed her condition that I told Mr. Cockran I feared I should never again see her alive; but I ordered her a mixture containing full doses of opium, digitalis and ammonia, together with ten grains of sulphate of quinine in milk every four hours. Also to have three teaspoonfuls of brandy every two or three hours as may seem necessary, and the nurse to pass the catheter every eight hours as before, and at the same time syringe out the vagina with solution of permanganate of potash. The abdomen to be wrapped in cotton wool covered with waterproof, and hot-water bottles to feet and legs. Later in the evening her temperature rose to 100°.

24th.—The report I received early in the morning was: "Patient looks bad; face cold and moist, expression of features not very anxious, very little pain, pulse 158, and stronger than last night, temperature 99·6°, has been sick, had a very quiet night, appears hopeful."

When I saw her in the afternoon the pulse had dropped to 130, and the temperature to 99°. No further sickness. Had passed with very little pain one copious fluid motion of a pale colour (almost white, due to the opiate). Expression improved, had taken her milk and beef tea well, and

said she felt better. Vaginal discharge no longer offensive, less abdominal pain.

I now reduced the dose of digitalis and ordered the ten grains of quinine to be given every six instead of every four hours. She was very anxious to take some solid food, so I allowed her a little bread-and-butter and a very small piece out of a mutton chop, which she greatly enjoyed. Evening temperature 99·2°.

25th.—Has passed a good night, but taken her food less readily. Morning temperature 99·2°. Has a feeling of discomfort in the rectum, but has not power to pass anything, so I injected into the bowel a quarter of a pint of warm water, but had to desist through its causing pain. I therefore removed with my finger a large amount of solid fæces distending the rectum, after which she felt much relieved. There has been no feeling of sickness and the solid food agreed perfectly, so she was allowed to continue it in small quantities in addition to her other diet. To go on with her brandy and medicines as before. Pulse 128. Evening temperature 100·6°.

26th.—Bowels have acted freely four times and without pain, the motions being solid. General condition slightly improved. Pulse 120. Temperature: M. 99·8°, E. 100·2°.

27th.—Does not look quite so well. Rather more abdominal tenderness but nothing like tympanites. Feels pain in the region of the spleen, and says she can hardly breathe when lying on her left side, but is quite comfortable while on the right side. The morning temperature has risen to 100·4°, but pulse remains as yesterday at 120. Physical examination reveals no cause for the pain. Vaginal examination shows that there is still a thin, purulent, inodorous discharge. The omentum has become quite pink uniformly, being the same colour as the vaginal mucous membrane, has retracted somewhat more, and appears to have shrunk since the examination on the 23rd. The examination did not give pain.

The bowels have acted three times very comfortably. She passes two or three ounces of urine with each relief

of the bowels, but cannot perfectly empty her bladder, and feels pain if the catheter is not passed directly she desires to make water, the use of the catheter being painless. Evening temperature 100·9°.

28th.—Aspect decidedly improved. Has not felt so much pain on the left side, but has avoided lying on it. Her abdomen is soft, of normal size, and resonant on percussion. Had slept well, waking but once during the night, when she had food and medicine. Has eaten an egg and bread-and-butter for breakfast, and a mutton chop for dinner, and said she should like some beer. Temperature: M. 100·2°, E. 98·6°. Pulse 116. The quinine to be repeated every eight hours.

29th.—Very much better, indeed her recovery seems certain. Her pulse has dropped to 102, and her temperature is normal. The bowels have acted copiously four times. Is now able to completely empty her bladder. There is but slight tenderness over the hypogastrium, and the vaginal discharge is very little. Says she is always hungry.

From this time she continued uninterruptedly to improve, although her temperature occasionally rose to 100°, or a little over. At the end of the third week she sat up, and on the 16th of May, exactly four weeks from the date of the accident, she drove in a fly five miles to the Royal Berkshire Hospital, where she remained under my care until the 4th of July.

Week by week the omentum in the vagina lessened, gradually frittering away until the last week in June when it had completely disappeared. The vagina remained about four inches in length, the upper part seemed fixed to surrounding structures, and the cicatrix was clearly discernible.

On the 30th of June I took her to see Dr. Matthews Duncan, the then President of our Society, who was kind enough to examine her.

I may here add that the pelvis seemed to be in every respect normal.

The extracted uterus is complete. It measures six and

a half inches in length, four and a half in breadth, and two and a half in thickness.*

In front the separation between uterus and vagina has been effected at their line of junction. The anterior lip of the cervix may possibly have lost a few fibres, but this

* The uterus is in the Museum of the Royal College of Surgeons.

is questionable. The vesico-uterine reflexion of peritoneum is torn obliquely from the left side, close to the uterine wall, across to the right side, one inch and a half from its uterine attachment, and from this portion hangs a narrow strip of peritoneum, five inches and a half in length, which had apparently formed part of the peritoneal covering of the bladder.

Behind, a semi-circular flap of the posterior vaginal wall, about one inch and a half in length, remains attached to the uterus. Near the junction of this with the cervix, is a bruise, and partial laceration, as if a finger had almost penetrated the vaginal wall at this point. The utero-rectal reflexion of peritoneum is detached close along the uterine wall.

On the left side of the uterus remain half an inch of the ligament of the ovary, one inch of the Fallopian tube, and about four inches of the round ligament; the broad ligament, excepting its extreme upper and lower uterine attachments, having been left behind.

On the right side the broad ligament is entire, having been torn from its pelvic attachments, and contains four inches and a half of the round ligament, the ovary with its ligament, and the Fallopian tube with its fimbriated extremity.

The uterus is well contracted and empty, the placenta having been expelled during the manipulations of the midwife.

The manner in which the mutilation was effected is not without interest, although I fear too much reliance cannot be placed on the account given.

The explanation of the midwife was that after waiting ten minutes from the birth of the child, finding that the placenta did not come away, she pulled at the cord, which broke short off. She then introduced her hand within the vagina, pressing above the pubes with the other, and feeling a hard substance which, having no cord to guide her, she imagined to be the placenta, took hold of it, and tried to get it away. The patient was very refractory and

begged to be allowed to rest, so the midwife withdrew her hand for a time. She then made a second attempt, the patient being on her left side, with her knees drawn up and her feet planted against the bottom of the bedstead. Having introduced her hand, the midwife made supra-pubic pressure and took hold of the lump, when the patient made a sudden spring and the midwife's hand and the lump came away together. The midwife believes the placenta was ejected from the uterus during the expulsion of the latter, as she never felt in the vagina anything like the placenta, nor did she pull the latter from the interior of the uterus after its removal, but found them both separate in the bed. She denied using any force, and says she merely pinched the substance between her fingers and thumb; but the patient and her mother, who was present, aver that much force was used and great pain given to the patient before she jerked herself away.

There is satisfactory evidence to prove that the uterus in this case was *not inverted* before extraction, for the patient's mother states that the uterus and placenta were immediately transferred from the bed to a vessel which was not again touched until shown to Mr. Cockran, while the midwife, unaware of the mischief she had done, went into another room to wash the baby. Meanwhile the patient complaining of feeling very ill, the mother looked to see if hæmorrhage were taking place, and seeing the omentum protruding sent off for the doctor; but no investigation of the contents of the vessel took place until Mr. Cockran's arrival, and his suspicions were not aroused until, on palpating the abdomen, he failed to find the puerperal uterus.

In spite of the conflicting statements as to the amount of force used, this account evidently contains a great deal of truth, but I can hardly believe that the untutored hand of this ignorant woman would, without a guiding funis, find its way to the interior of the contracted uterus, and I think I am supported in this opinion by her statement that she felt a hard substance *between* her hands, for had

one hand been within the uterus a quite different sensation would have been experienced.

Supposing, therefore, the anterior or posterior uterine lips had been firmly held by the finger and thumb, I imagine that on the jump being given their hold would have slipped rather than that, without previous partial separation, the whole uterine attachments should have given way.

It will be noticed that the specimen includes a semicircular flap of the posterior vaginal wall, which is bruised and slightly torn, and I incline to the belief that this part must have been first lacerated by the midwife, or the uterus forced up until more or less separated from the vagina before a hold could be obtained firm enough to bring away the uterus from its remaining attachments.

The statements of the midwife, the patient, and her mother, all agree that the hand of the midwife, with whatever it held, came away at the moment of the jump and was not again introduced.

The only other tenable hypothesis is that towards the end of labour laceration of the vagina took place. This leads to a point with which I will deal later on.

In investigating the literature of accidents of this nature I have received much assistance from Dr. Neale's invaluable 'Digest,' Dr. Braxton Hicks, Dr. Herman, and particularly from Dr. Matthews Duncan, to whose excellent memory and great kindness I thankfully testify.

Neale gives three references :—

1st. In the 'Medico-Chirurgical Review' for April, 1848, page 558, Mons. Tardieu mentions three cases in which the uterus was torn away, but in each the victim died after several minutes, two hours, and half an hour respectively. It is not stated whether any additional and necessarily fatal mutilation was inflicted, no particulars being given. Mention is also made of a case related by Mauriceau, 1694, in which uterus, intestines, and mesentery were torn away, the woman living one hour.

2nd. In the 'Medico-Chirurgical Review' for April, 1866,

page 535, is mentioned a case recorded by Dr. Hoffmann. A woman, aged 39, in her ninth labour, was under a midwife who gave a powder, soon after which the child was expelled. She immediately removed the placenta by drawing on the cord. Strong after-pains followed, and the midwife felt a fleshy mass in the vagina. The district surgeon found the patient pale, cold, and almost pulseless, and a dark red fleshy mass projecting from the vulva. As he could not return it, he took it for a growth or fleshy mole, and passed his hand near the mass and through an opening which he took for the os uteri. After twenty minutes' manipulation he directed the midwife to take away the mass. Immediately this was done a loop of intestines appeared. The mass torn away was the uterus. The examination of the body showed that the lower part of the vulva, together with the perinæum as far as the anus, was torn off, and no trace of uterus, ovaries, or Fallopian tubes was found.

In this case it is evident that the uterus was inverted, either by traction on the cord or spontaneously, previous to its being torn away.

3rd. In the 'Medical Times and Gazette' for December, 1868, page 728, reference is made to the trial of Mr. Popplewell for manslaughter. I have been unable to ascertain the age of the patient and the number of her pregnancies, but post-mortem examination showed fatty degeneration of the heart, liver, and other organs.

The child was delivered by forceps, but in the report which I have seen no mention is made of how long she had been in labour nor of the character of the pains. The placenta being adherent, traction was made on the cord, when, without (apparently) more force being used than this would admit of, a mass was brought away, and the woman rapidly sank and died.

The substance consisted of the uterus (*not inverted*), containing within it the placenta with funis attached; a portion of the lateral ligament containing one ovary, and about three inches of the vagina. The uterus was

described as hypertrophied, the muscular fibres diseased, many granular cells being present, and much fat deposited in the interstices of the tissue.

Dr. Barnes, who was called for the defence, believed that the degenerated tissues predisposed to laceration; that such was caused by the passage of the child's head through the vagina; and the pulling of the cord merely completed the separation. Dr. Hicks, who was prepared to give evidence, was of the same opinion, and was assured by Mr. Popplewell that the whole uterus came away quite easily, no force being used.

In the 'Provincial Medical and Surgical Journal' for 1845 is reported an inquest held on a woman, attended by Mr. Gaches, of Costessey. The patient was safely delivered of her ninth child after an ordinary labour. There had always been difficulty with the after-birth, and on this occasion Mr. Gaches attempted to remove it, using apparently much violence. He finally extracted a large substance which he removed with scissors and took away with him. The woman died in half an hour.

At the inquest the substance was not produced, but the result of the post-mortem examination was to show that the womb with all its appendages, the whole of the large intestine, except thirteen inches, and some of the small intestines were absent; and at the two places where the separation of this removed bowel had occurred there was every appearance of the removal having been made by laceration.

Mr. Gaches declined to make any statement, and there is no evidence to show whether or not the uterus was inverted previous to its removal.

Dr. Herman has most kindly drawn my attention to a work on uterine inversion, by Dr. P. Denucé, of Bordeaux, published in 1883, after the greater part of this paper had been written.

The treatise, which is in our library, is exhaustive. With most praiseworthy industry this author has collected no less than three hundred and thirty cases of inversion of

the uterus, of which twenty-two occurred immediately after delivery.

Of these, the earliest that he mentions occurred in 1678, when Arnoult,* surgeon of the Hotel Dieu in Paris, amputated a womb inverted subsequent to confinement. Death resulted.

In 1679, Bohemer† relates that a uterus was torn away by a midwife, death following immediately.

Stalpart Van der Viel,‡ in 1687, relates a case of post-partum uterine inversion in which the midwife excised the organ. The woman died.

Ruysch,§ in 1691, gives a similar case, in which the practitioner excised the tumour, and the patient died rapidly of hæmorrhage.

De Leurye,|| in 1778, amputated at once an inverted womb. Death in three days.

Dailliez mentions that in 1803 a midwife in Paris, having caused inversion by traction on the cord, mistook the uterus for a mole, and kept pulling at it until her patient died.

A case is put on record by Dr. Boys, and mentioned by Ramsbotham, edition 1841, page 654, which happened in 1807. The labour was complicated with adherent placenta. The attendant broke the placenta by pulling on the funis. This produced hæmorrhage and he left the patient. In about fifty hours, no attempt having been made to relieve her, the nurse found something hanging out of the external parts, and on his being apprised of it he said it must be taken away, and placed her on her left side for that purpose. He made use of considerable exertion and caused great pain. He then ordered a pair of scissors to be brought, saying there was a false conception which must be removed. While using them the patient fainted and died immediately. The parts removed

* Mauquest de Lamotte, 'Traité d'Acc.,' t. ii.

† 'Denucé,' p. 413.

‡ 'Obs. Rar. Med. Anat. Chir. Centuria,' Leyde, 1687.

§ 'Obs. Anat. Chir. Centuria,' 1691, p. 24.

|| Dailliez, 'Thèse de Paris,' t. xlii, an. xi, 1803, No. 382, pp. 103-104.

by this brutal operator were preserved, and proved to be the uterus, right ovary and tube, part of the vagina, and part of the left Fallopian tube; the greatest part of the rectum, cæcum, appendix vermiformis, the ascending portion of the colon, the right side of the transverse arch, all the ileum and inferior part of the jejunum, with part of the mesentery and the greater part of the great omentum, which had been torn away from the right side of the greater curvature of the stomach. The remaining portion of the transverse arch of the colon, and much of the jejunum were torn from their attachments.

Baxter,* 1810, relates a case of avulsion after inversion followed by immediate death.

Velpeau,† 1836, quotes a case, related by Ulm, where the midwife cut off the inverted uterus with a razor. The patient died.

Septimus Hunter,‡ 1839, notices a case related by Breslau, in which a bone-setter tore away an inverted uterus which he took for a mole, causing rapid death.

Lowenhard,§ 1850, relates that a midwife in a transverse presentation manipulated with such violence that she pulled out the uterus with the head of the child and cut it away, which led to protrusion of the intestines into the vagina, with collapse and speedy death.

T. H. Paget,‖ 1869, in the 'British Medical Journal,' reports the case of a woman, aged 24, who at the end of a natural labour, twenty minutes after the birth of the child, was subjected to traction of the cord for the delivery of the placenta, and which may be believed to have been moderate, but which nevertheless caused complete avulsion of the uninverted uterus and death.

Sentex, 1871, in the 'Bordeaux Medical Journal,'¶

* 'Ann. de Litt. étrang. Gand,' t. xv.

† 'Méd. op.,' t. iv, p. 417.

‡ Labrevoit, 'Thèse de Strasbourg,' 1835.

§ 'Revue mensuelle de Rhin,' 1850.

‖ P. 540.

¶ No. 51, p. 401.

relates that a practitioner, called to a woman who had just been confined, proceeded to remove the placenta, and after numerous attempts extracted at the same time the placenta, part of the uterus, five metres of small and some of the large intestine, which he cut with a knife. The operation lasted three hours, and the woman died two hours afterwards.

I am indebted to Dr. Leonard Cane, of Peterborough, for notes of the following case, which has since been published in the 'British Medical Journal,' vol. i, 1883, p. 453.

Mrs. B—, æt. 29, syphilitic, was expecting her third confinement about the end of November, 1882. On October 26th she was, without any known cause, suddenly taken with labour pains and had a great deal of "loss." When Dr. Cane saw her the same day the pains had ceased, there was still some discharge going on, and the os uteri admitted the tip of the finger. An opiate was given her. Early on the morning of the 28th she was confined and died, only a neighbour and a village midwife being present. The history obtained was that the woman remained faint and weak but otherwise fairly well, until midnight on the 27th, when severe labour pains came on and the child was born before the arrival of the midwife, who found her fainting with great loss. She cut the cord, took away the child, and removed the after-birth, which she stated came away quite easily, but that there was a false conception which came away after the child. On this point she and the neighbour at the inquest gave most unsatisfactory evidence, but they denied using much force. Post-mortem examination showed half the left ovary in its proper place, while the remainder, with the uterus and its appendages, were missing. The parts removed proved to be the placenta (much broken up on its attached surface, apparently torn during removal) and the *inverted* uterus. On re-inverting this the whole organ was found to be torn away, the rupture passing through the vaginal wall in front about an inch from its reflexion on to the cervix uteri, and behind at the reflexion of the

peritoneum from the uterine walls. The broad ligaments were torn, the rupture passing through one ovary, the other being still attached to the uterus. The uterus appeared healthy and the ovaries normal. The inner surface of the uterus from which the placenta had been detached was ragged, and small portions of placenta were adherent. In reply to an inquiry Dr. Cane kindly informed me that the edges of the laceration through the vagina were clean and at first sight looked almost as if cut.

All the above-mentioned cases ended fatally, but in addition to my own I have found recorded fourteen recoveries. For nine of these I am indebted to the work of Denucé, the remainder are from other sources, though most of them are included in his list.

Anselin,* surgeon at Amiens, in 1764, saw a woman, aged 42, in her twelfth labour, in which the womb became inverted. He reduced it; she did well for three days, when she had a fœtid discharge. On the ninth day a piece of gangrenous womb came away, and on the fifteenth the remainder of the organ. The vagina was completely inverted and formed a tumour the size of the egg of a guinea-fowl hanging between her thighs, more voluminous below than above. He ligatured this, and seven days after amputated it without loss of blood. The patient was well in seven weeks.

Quequet in commenting on this concludes that it was not the vagina but the uterus that was amputated. It is evident that the parts which had detached themselves spontaneously were either the remainder of the placenta left by the accoucheur, or a slough more or less deep on the inner surface of the womb, but not the womb itself, which indeed was the "tumour the size of an egg, lying between the thighs, larger below than above," &c., which had inverted itself a second time, the possibility of which has been proved, because it had been imperfectly reduced, and which was successfully amputated by Anselin.

* 'Journ. de Méd.,' t. xxv, p. 458.

Faivre,* 1767, mentions a case of inversion by traction on the cord by a midwife, which could not be reduced. It threatened to become gangrenous, so was ligatured and fell on the twenty-seventh day, in a month from which the patient was well.

This is the first recorded case of the application of the ligature exclusively to the inverted puerperal uterus.

Osiander,† Professor at Gottingen, about 1800, records that a midwife having drawn the uterus with the placenta outside the vagina cut it off level with the latter. The patient recovered. Osiander brought this woman every year to his clinic to be examined by his pupils.

Velpeau,‡ 1836, quotes two cases, one related by Viardel, and the other by Caillé, in which the midwives had excised the inverted uterus. Both patients recovered.

Perrachi,§ 1837, mentions that a midwife tore away a uterus inverted after confinement, and the patient recovered.

Rossi,‖ 1841, gives a case of a midwife who partly detached the inverted uterus by immoderate traction and completed the separation with a knife. The patient recovered rapidly.

Oldham,¶ 1850, relates the case of a midwife who, drawing on the uterus, inverted it, tore it away, and completed the separation with a bistoury. The patient recovered.

A case is reported in the 'Medical Journal of Bavaria,' for 1851,** where the midwife tore away the uterus and one ovary by violent traction on the placenta, but recovery resulted.

A most extraordinary case was published in 1835 by

* Ibid., t. xxvii, p. 72.
† 'Dict. de sc. Médic.,' t. xxxi, 1819, p. 221.
‡ 'Méd. opér.,' t. iv, p. 417.
§ 'Gaz. des hôpitaux,' 1842.
‖ 'Gaz. méd.,' 1841.
¶ Ibid., 1850, p. 310.
** P. 712.

Mr. John Charles Cooke, who practised, I think, in Coventry, and whose pamphlet is in our library.

At 4 a.m. on May 22nd, 1835, a midwife was called to a Mrs. Cunningham, who had been in labour forty-eight hours. The os uteri was dilated to the size of half a crown and the child's head presented. Everything went on well, and the woman was delivered at 7 p.m. of a living child after a labour of sixty-three hours. The placenta followed, whole, in a quarter of an hour, being expelled by a pain. No hæmorrhage ensued at the time, but during the night there was considerable loss. The after-pains were trifling, and when visited by the midwife in the morning the patient appeared to be in a very satisfactory state. At 4 a.m. on the 24th, or thirty-three hours after delivery, the midwife was hastily summoned and learned that the woman had risen during the night and gone into an adjoining room to pass water; that whilst there she had by her screams alarmed her husband, who, with some neighbours, found her seated on a stool before the fire with a vessel of warm water in front of her, and a large substance lying between her thighs supported by her hands. The midwife found her lying upon the bed, pale from loss of blood, and in considerable pain. The bed, sheets, blankets, &c., were saturated with blood, which had even run on to the floor. Upon proceeding to ascertain what had caused all this, she discovered a hard substance lying on the bed, loosely connected to the vagina by a shred of membrane only. This substance she immediately recognised as the uterus, and lifting it gently removed it without difficulty or effort and placed it in a bowl. The hæmorrhage then ceased, so the midwife left her and took the bowl and its contents to Mr. Cooke's father, who found an inverted uterus with all its appendages, except the left ovary, attached.

Mr. Cooke, sen., visited the woman and found her exhausted, restless, and nearly pulseless. She did not appear to suffer much pain, and there being no evidence of protrusion of abdominal or pelvic viscera he abstained from making a vaginal examination, but gave directions

as to treatment and diet. During the succeeding night she got out of bed to pass water. With the exception of diarrhœa lasting three or four days she got well without any worse symptom than slight abdominal tenderness on pressure.

Previous to her confinement milk was secreted in considerable quantity, but immediately after the loss of the uterus this secretion was arrested. For a long time after her recovery she persisted in applying the child to the breasts with the view of restoring the supply, but finding her efforts vain and that not a drop ever exuded, she finally desisted.

In commenting on the case, Mr. Cooke writes :—"With regard to the degree of violence which must have been used in order to effect so complete and entire a removal of an organ so voluminous as the uterus, at a period of thirty-three hours after delivery, it is almost impossible to conceive it to have been offered by the woman herself, and yet such, there is every reason to believe, was the fact, if, indeed, we find ourselves compelled to suppose that violence alone can suffice to account for such an event. The midwife most positively asserts that she did no more than remove the tumour which, attached to the vagina by a small piece of membrane only, she found lying between the thighs of the woman. In this statement she is most strongly corroborated by the neighbour who first saw the woman after having been called up by the husband. This woman distinctly states that she saw a large lump like a child's head and neck lying between her thighs and supported in her hands. She also bears out the midwife as to the fact that no effort was required to remove it, from its being so loosely connected to the vagina."

Mr. Cooke's assumption that the woman herself had violently detached the inverted and protruded organ is not satisfactory ; indeed, it seems to be contradicted by his report of the case. The midwife found the uterus connected with the vagina by a shred of membrane only.

If, therefore, intentional separation had proceeded thus far why was it not completed? On the contrary, the husband and friend found the woman supporting the tumour with her hands, which is opposed to the other proceeding.

Two alternatives present themselves. One, that just at the completion of so long a labour a partial rupture of the upper vagina took place, which was completed by the sudden extrusion of the inverted organ through the vulva. The other, that the protruded uterus, its structure weakened by commencing involution, was dragged upon during her removal from the stool on which she was found to the bed on which she was lying on the arrival of the midwife. The absence of bad symptoms for thirty-three hours renders the first of these suppositions unlikely, though not impossible, and the accident, on the evidence offered, seems inexplicable.

Dr. Matthews Duncan has drawn my attention to a paper by Dr. Schwartz in the 'Archiv für Gynäkologie,' Band xv, for 1880, in which mention is made of five cases, four of them being followed by recovery.

Dr. Schwartz states that in all the papers at his command he can only find these.

The fatal case is that of Mr. Gaches, which I have already quoted as reported in the 'Provincial Journal' for 1845.

In two out of the four recoveries the midwife had inverted the uterus, pulled it out, and cut it away with scissors. One of these is related by Bernhardt in 1802, and the other by Wrisberg. In the latter, in 1787, the whole uterus, half of each Fallopian tube, and the right ovary were cut away. To prevent protrusion of the intestines Wrisberg introduced a wet sponge. The woman was a long time in fever, but in four weeks had so far recovered that only a fistulous opening remained, which closed after several years, she being then completely cured.

The third case is communicated by Breslau, 1850. The

midwife, after repeated trials to bring forth the placenta, called in a bone-setter visiting the place as a bather. He found the woman highly anæmic, and the navel string torn. On introducing his hand he felt a large round body which he believed to be a mole, and pulled it out, apparently without much force. To his horror he found it to be the uterus. In his terror he ran away and left the poor woman to her fate. She had high fever and an offensive discharge, yet after fifteen days she was out of danger. After six months there remained a fistulous opening in the fornix of the vagina, which later on closed spontaneously.

The fourth case, which is the first one mentioned in Schwartz's paper, is very fully reported. It occurred in the practice of Dr. Hartwig, of Pyritz, in Pomerania, and is almost identical with my own. The patient, aged 29, ninth confinement, was seen two and a half hours after the accident. She was unconscious, anæmic, and had cold extremities. Her labour had been easy and quick, after which the midwife pulled at the cord, which broke. She then introduced her hand into the uterus and easily extracted the placenta, but thought from its smallness and the considerable hæmorrhage that a piece of placenta might be retained, so re-introduced her hand and felt on the left side a large roundish easily moveable substance, which she considered to be a tumour and therefore pulled it out, causing intense pain and great hæmorrhage.

Examination showed that the lower part of the vagina was uninjured, but higher up projecting coils of intestine could be distinctly felt. The treatment was to wash out the vagina, introduce a tampon of clean linen to prevent prolapse of the intestines, and give wine and salicylate of soda. Subsequently the vagina was frequently syringed with a 3 per cent. solution of carbolic acid, and tamponed with salicylated wadding.

In nineteen days the vaginal rent had healed, and three weeks later inspection through a speculum showed a hard stellate cicatrix, and no trace of the cervix or os uteri.

The extracted uterus was complete with the exception of the under part of the cervix, the separation having taken place a little beneath the os internum. Attached to it were the anterior fold of the right broad ligament with 6 cm. of the tube ; and on the left side were 11 cm. of the tube and 5 cm. of the round ligament. The ovaries with their ligaments were left behind.

Considering that the separation was effected through the middle of the cervix, it is a pity that no description is given of the condition of the upper part of the vagina at the time of the accident, but the opinion is hazarded that the missing part of the cervix had been either removed piecemeal by the midwife, disintegrated as lochial discharge, or so included in the hard cicatrix that no trace of it could be discovered.

The above thirty-six cases of accidental removal of the puerperal uterus are all I have been able to find recorded after a diligent search, although I imagine that if earlier centuries had been as rich in periodical literature as our own an appalling list of such occurrences might have been tabulated.

The cases I have collected are naturally divided into those attended with inversion and those in which inversion did not take place ; and importance attaches to them on account of the grave medico-legal questions which they involve.

Of the thirty-six cases, twenty-two are simply the tearing or cutting away of the previously inverted uterus. Of these eleven recovered.

In eleven cases it is not mentioned whether the uterus was or was not inverted before removal ; but as they are included by Denucé in his treatise on inversion, it is probable that he was able to satisfy himself that this condition existed.

Of these two recovered, making thirteen recoveries out of thirty-three cases.

In addition to my own I can find only two cases, those of Popplewell and Hartwig, in which the uterus undoubt-

edly did not undergo inversion. Of these three cases two recovered.

I have not yet met with any reported case in which inversion of the puerperal uterus co-existed with rupture of its lower segment or laceration of the vagina; and I therefore think that cases of removal of the previously inverted uterus should give the expert little difficulty in estimating the degree of criminal responsibility attaching to the attendant.

It is otherwise where it can be distinctly shown that no inversion of the uterus has existed, on account of the great difficulty, if not impossibility, of proving that rupture through the uterine cervix, separation of the vaginal attachment, or laceration of the upper portion of the vagina had not spontaneously taken place during the birth of the child and previous to the removal of the uterus.

Satisfactory evidence exists to show that such laceration is not necessarily incompatible with the unaided completion of labour. Thus, Dr. M'Keever, in 'Practical Remarks on Laceration of the Uterus and Vagina, with Cases,' states, "On some occasions the uterus has been known to give way during the very pain which effected the delivery of the child; instances of which may be found in the works of Crantz and Gillimeau."

Ramsbotham, edition 1841, page 594, writes, "Cases are on record also where the same contraction which caused the laceration expelled the child into the world." He also refers to Burns, page 470 (which reference I am unable to find), and to a case published by Mr. Currie, of Liverpool, in which the breech presented, and the laceration took place between the expulsion of that part and the birth of the shoulders.

Smellie, Case 441, mentions a woman with distorted pelvis who had lost her child in her first and was then in her second labour, which was tedious. He entered the room just as the head was delivered, but as the child stuck at the shoulders he delivered the body in a succeeding

pain. On introducing his hand into the vagina he found part of it torn from the right side of the os uteri, about three fingers' breadth. The os was also a little torn. The woman recovered, and he afterwards delivered her of another child, which was small and born alive, and he found a large gap or chasm still existing at the side of the os uteri.

Of 128 cases of rupture occurring during parturition collected by Trask, 47 were at the cervix, and involving the vagina, and separation from the vagina.

In support of my argument I select the following:

Case 43.—Third labour. Very severe. Fall two months before. Breech presentation. Rupture after breech and half trunk had passed vulva. Recovered.

Case 132.—Delivered by natural efforts. Child born alive. Patient died of flooding. Longitudinal rent in side.

Case 209.—Fifth pregnancy. Anteversion. Labour five hours. Whole posterior part of uterus torn from vagina, a semicircle of four or five inches. Edges rough.

Case 221.—Transverse rent at junction of cervix and vagina. Edges irregular.

Case 258.—The whole os burst off.

Case 280.—Rupture directly across neck of womb one and three quarter inches in length. Edges ragged.

Trask writes, "To the occurrence of each and all of the symptoms above described there are numerous exceptions, and the practitioner should therefore be prepared to meet with cases of this accident in which the symptoms are far from distinctly marked. By a reference to our cases we shall see that the symptoms occur in every degree of intensity and in every variety of combination. Thus, of those cases in which the character of the labour previous to rupture is stated, in twenty-nine the pains were very severe, twenty-three strong, twenty-eight moderate, ten feeble, and eleven tedious. In eight cases six had none of the usual symptoms, and two merely that of recession of the child's head."

Johnson and Sinclair mention a case of a woman, poor and destitute, who entered the hospital in labour. The os uteri was the size of half a crown, the head presenting, the membranes entire and uterine action trifling. She made no complaint, took nourishment, went to bed, and was believed to be asleep, but was shortly found to be dead. At the autopsy scarcely any blood was found in the cavity of the peritoneum, and no trace of inflammation could be discovered, but there existed a rupture involving two thirds of the circumference of the uterus at the junction of the cervix with the body. In the region of the rent the uterus was extremely thin, and the tissue soft and friable.

Dr. Horrocks has most kindly lent me notes of a case, which he will shortly bring before this Society, in which the child was wholly expelled by uterine action in spite of a considerable longitudinal rupture involving both uterus and vagina.

I would like to point out in passing, that both in this case and in that of Trask, No. 132, quoted above, where the children were born without assistance, the uterine laceration had a *longitudinal* direction; and cumulative experience may show considerable difference between the expulsive powers of uteri which have ruptured in this way and of those in which the tear is more nearly transverse.

In 49 only of Trask's cases is the condition of the uterus recorded. In 10 it was healthy; 14 thinned; 14 softened; 1 thinned and softened; 2 thinned and thickened; and 3 diseased.

Dr. Murphy, in the 'Dublin Medical Journal,' vol. vii, calls attention to a diseased condition of the uterus from idiopathic causes as predisposing to rupture. Of eight cases mentioned, in four there was softening of the uterus, and in three it was thinned.

In vol. xx of the 'British and Foreign Medical Review,' Dr. West gives references to eight cases of fatal rupture of the uterus or vagina, *all of which occurred spontaneously, independent of any manual interference, or of the existence*

of disproportion between the mother and the child (viz. Rendell, 'Med. Times,' May 4th, 1844; Arnold, 'Prov. Med. and Surg. Journal,' July 24th, 1844; Wright, 'Boston Med. Journal,' June, 1844; Elkington, 'Prov. Med. and Surg. Journal,' Sept. 11th, 1844; Griscour, 'New York Journal of Med.,' May, 1844; Bond, 'American Journal of Med. Science,' January, 1845; and two foreign references).

It is obvious, therefore, that where manual or instrumental interference is necessary, laceration may be caused, when the structure of the organs is diseased, by the gentlest, most careful, and skilful manipulations, as in the introduction of the hand within the uterus. Ingleby, in his work, written about 1831, on 'Obstetric Medicine,' page 194, writes: "Thus, in very difficult turning cases, the extensive separation of the vagina from the uterus has occurred whilst the practitioner was engaged in changing the position of the child, the uterus instantly passing into the abdomen beyond his reach. I am acquainted with two such instances. From these and several others of a similar kind which have been reported to me, it appears that a laceration of the superior portion of the vagina, including nearly its whole circumference, and the consequent recession of the uterus beyond the reach of the finger, is an occurrence by no means unfrequent."

The cases and authorities I have quoted show that not only is spontaneous laceration of the uterus or vagina not altogether rare, but that when it occurs the extent of laceration is often considerable, and further, that the expulsion of the child by natural efforts is not incompatible with previous or simultaneous rupture.

It would be impossible to meet with a better illustrative case than that of Popplewell recited above. In my own case the presumption is that considerable violence was used by an extremely ignorant woman, but the accident is one that may befall the most experienced and skilful of ourselves.

I think, therefore, I am warranted in concluding that

in cases of avulsion of the puerperal uterus in which *inversion has not taken place* it is almost impossible to affirm that the separation has not been caused or contributed to by spontaneous laceration during labour; and I would emphasize the corollary that it is incumbent on us to be most guarded in any opinion we may be called upon in such cases to express.

Among the many interesting points in my own case may be mentioned the rapid occlusion of the peritoneal cavity by the contraction of the vagina; the extensive permeation of the solidified omentum by capillary blood-vessels, giving it a uniform pinkness; the happy result of the vaginal disinfection in preventing the absorption of an additional dose of septic poison, and by which I believe the patient's life was saved; the extent of her injury; the comparatively small amount of shock; and the completeness of her recovery. I regard the prolapse of the omentum as a fortunate circumstance in preventing the more serious complication of protrusion of the intestines. I think it may also have acted advantageously as a pelvic drainage-tube.

On the 10th March, 1883, I again examined the patient. She looked extremely well. Her only trouble was connected with her bladder. Pain preceded, but was relieved by micturition, and this took place frequently, often hourly by day, but she could hold her water quite comfortably all night. Lifting a weight produced a bearing-down feeling in the bladder. I found on examination that she had a tendency to cystocele, but the falling was very slight. There was no contraction of the vagina. Her urine was clear and free from smell. She is cohabiting with her husband. Sexual feeling is absent. Her left ovary gives her no trouble and she does not recognise any monthly nisus.

Her mother called on me in March, 1884, nearly two years from the date of the accident, and informed me that my patient was perfectly well and following her usual occupations.

A CASE OF RUPTURE OF THE UTERUS AND VAGINA.

By P. Horrocks, M.D.

On the 25th of March, 1884, about 2.30 p.m., a poor woman in her ninth labour sent up for assistance to Guy's Hospital.

Mr. Bindley, one of the externs, went in answer to the summons and found the patient walking about the room dressed. She had not had any severe pains, but slight ones had been about her for twenty-four hours. On vaginal examination the os was dilated to the size of a crown-piece, and the unbroken bag of membranes bulged from it for two or three inches; head presenting. During the examination a pain came on, but the membranes did not get tense. Within the next half hour two or three very severe pains came on, following one another quickly, and the patient felt very sick. She did not cry out and there was no hæmorrhage.

Soon afterwards there was an action of the bowels and the patient was very anxious to get up. Whilst she was being quieted the child's head, covered by the unbroken membranes, appeared at the vulva. The membranes, which were not tense, were ruptured immediately, and the whole of the child was forthwith suddenly born. No hæmorrhage took place. The cord was tied as usual and the patient was allowed to remain quiet for twenty minutes. The extern noticed that the woman was getting faint, pulse 120, very weak, face pale, extremities cold. She vomited two or three ounces of a dark brownish fluid. A dessert-spoonful of brandy was given. Expression of the placenta was next attempted, but without success. The

uterus appeared to be flaccid and dilated. Cold therefore was applied to the abdomen and a vaginal examination made which revealed what appeared to be a "band" running across the vagina. There was still no hæmorrhage, but the extern sent for assistance and meantime injected some hot water into the vagina, which caused the uterus to expel the placenta into the bed. A drachm and a half of the liquid extract of ergot was then given. There was only a little hæmorrhage following the placenta.

The woman was getting fainter and the pulse had become imperceptible at the wrist. The extern now felt a rent for the first time. On his arrival the Junior in Charity, Mr. Champ, found the patient pulseless, and pale but conscious, extremities cold; she was lying in the left lateral position. There was no external hæmorrhage, but the abdomen was flaccid and the uterus could not be felt. Per vaginam he got his hand easily through the rent, and compressed the abdominal aorta whilst a messenger went for me. I received the message at 4.30 and got to the patient in fifteen minutes. The rupture seemed to me to be confined to the vagina and to begin at the upper and back part of the posterior cul-de-sac and to run downwards longitudinally, widening gradually to the left side, and extending to within an inch or an inch and a half of the vaginal outlet. The uterus was firmly contracted. I passed my left hand through the cleft into the pelvic cavity, and removed one or two clots of blood, but there seemed to be no more. The woman was conscious though pulseless, but she soon became unconscious. I injected brandy subcutaneously, compressed the aorta, &c., whilst the instruments were being got, as I intended to sew up the rent from below without making an abdominal section. Death, however, took place before it was possible to do anything.

After death a more thorough examination was made and very little blood was found in the abdominal or pelvic cavities. Three days later Mr. Martin and Mr. Champ

obtained permission to remove the uterus, &c., from below. This they accomplished very nicely and the specimen has been kept ever since in sanitas powder, which has entirely destroyed the very offensive odour, but which has not preserved the natural colour which I was in hopes it would do.

On examining it closely one finds that the rupture extends from the back of the uterus just above the cervix, and runs downwards and a little to the left through the cervix, and along the vaginal wall, ploughing up the cellular tissue about the vagina to within one to two inches from the vaginal outlet.

The cervix itself was apparently obliterated so that the margin of the os externum was represented by a slight elevation on the vaginal wall. The "band" felt by the extern was the torn upper edge of the contracted uterus. The parts were quite healthy in appearance. No other viscera were examined.

So far as I can discover this patient had never had any difficulty in her previous labours, and at Christmas, 1882, she was delivered of twins. Her health was good, but her husband had until within a few days been out of work, and so possibly she had been pinched in her diet.

There can be no doubt, I think, that the rupture took place during the passage of the head along the cervical and vaginal canals. It is impossible to state with certainty the cause of it, but it has suggested itself to me that it may have been produced by the ponding up of liquor amnii above the head, so that when the uterus contracted the pressure became distributed on every part alike, producing a spherical distension which resulted in the extensive laceration seen in this specimen. On the other hand, it must be remembered that there were three very severe pains following one another in quick succession, and there may have been some undiscovered cause for this excessive action.

Negatively, there was no disease in the tissues, no tumours, no contraction or bony prominences of pelvis,

nor other recognised factors in the production of rupture of the uterus.

The patient died of shock and collapse and not from hæmorrhage. The blood lost externally was less than the average in a normal case, and post-mortem there was not much blood in the abdomino-pelvic cavity.

Had she survived the shock caused by the rupture I was about to try and sew up the rent with the vesico-vaginal fistula instruments, manipulating entirely from below. This decision was arrived at in order not to produce further shock by abdominal section, and because the rent did not extend far up the uterus, and because, owing to the absence of obvious pelvic contraction and the dilatation produced by the parturition, there was much more room than one gets to perform similar operations in various forms of fistulæ.

Fellows of the Society with more experience will perhaps be able to say whether, in such cases, they have found it necessary or better to make an opening in the abdominal parietes, and so get at the rent from above as well as from below.

The PRESIDENT expressed his sense of the indebtedness of the Society to Mr. Walters for the interesting and complete account of the subject he had brought before them, and congratulated him upon the successful issue of his case. The case was one of singular interest both from the forensic and obstetric points of view. He could not quite gather from Mr. Walters's account in what way the projecting omentum had disappeared, and he would also like to ask Mr. Walters whether examination had detected any undue softness in the uterine tissues.

Dr. AVELING asked if any penal action had been taken against the midwife. He thought the case another strong proof of the necessity of passing a Bill to ameliorate the present ignorant and dangerous class of midwives.

Dr. BRAXTON HICKS, after complimenting the author for his valuable paper, especially valuable because the subject had not been discussed before, thought that in the case narrated there was already a rent at the junction of uterus and vagina, and that the midwife, in passing her hand up to remove the placenta, failing to recognise the several parts, mistaking the rent for the flabby os uteri, and the omentum for placenta (an error he had

seen made before), dragged down the uterus, which may have been relaxed, as is usual after such accidents. He said the paper had doubtless called up several important thoughts on the subject; but in considering the method by which this accident occurred we must bear in mind several facts. It was not necessary that when there is laceration of vagina there should be severe expulsive pains, ordinarily called bearing-down pains, being what we call the auxiliary forces; on the contrary, when these are deficient it is more likely to occur, for it is the uterus alone which produces the mischief. When an obstacle to the exit of the fœtus occurs after the head has escaped the os, the force of the uterus is expended on itself and the upper vagina; there is a tussle between the strength of the tissue and the force of the uterus, which is exerted then in the direction of the fundus, —a kind of recoil. In some women these tissues are weak, and in any, when once a small portion has given way, it does not require very much force to extend the laceration, and it is easy to conceive that where the fœtus is symmetrically placed, or nearly so, the laceration may extend all round; then nothing remains to hold it but the broad ligaments, and these are delicate tender tissues, mere vehicles for the conveyance of blood-vessels, as will be acknowledged by those who have seen the parts just after delivery. These are readily rent through. The round ligaments are then the only attachment, and it would not take much to lacerate these alone. A very slight force will free the uterus after the severance of the vagina. In some of the cases where transverse laceration of the junction of the vagina and uterus has taken place the lesion has extended through two thirds of it or more. In the case of Popplewell, alluded to in the paper, he was assured privately that no force had been used, and he thought from what he knew that this was true. Indeed, he could not conceive that in simple removal of the placenta from a sound uterus and vagina it would be possible to tear the organ away, though it was clear that it would not be difficult to pass the hand through the rent about the uterine neck, thinking it the flabby os, and then, seizing the uterus by mistake, drag it through, at the same time rending the parts hitherto sound. When the uterus was torn from the vagina in the greater part, and from half of the other attachments, he could conceive the rest could be accomplished by the bearing-down efforts of the patient.

Dr. Champneys said that the uninverted uterus might conceivably be torn away by inserting one or more fingers through the cervix, retroverting the fundus, hooking the fingers backwards, and pulling.

Dr. Barnes bore testimony to the high value of the memoir. It could not be adequately discussed. He simply took the opportunity of observing that clinical observation entirely bore

out the explanation of the production of rupture given by Dr. Hicks. That the uterus had the power to tear itself asunder from the vagina seemed sufficiently proved. It had a *vis insita* which for a short time at least enabled it to contract, and thus to pull upon the vagina and broad ligaments, independently of centric nervous supply. He would add a caution as to the "expression of the placenta." In the case described by Dr. Walters the midwife applied pressure from above. A wrong method of expressing the placenta might cause inversion. This had occurred in a case sent to him at St. George's Hospital. The right way was to use the two hands, so grasping the uterus as to compress the anterior wall upon the posterior.

Dr. HERMAN said that a great value of Mr. Hopkins Walters's paper was in this: that in any future case of the kind in which evidence on the subject might be required in a law court, those whose duty it was to form an opinion would find all available facts bearing on the subject brought together in Mr. Walters's paper. The paper had shown, and its conclusions had been corroborated by the remarks of those who had spoken on it, that the avulsion of the uterus was effected in certain conditions with extreme ease; and that the mistake of pulling it away had been made repeatedly by qualified medical men. He thought that when they bore in mind the exceptional nature of the cases which make this mistake possible, the suddenness with which the emergency arises, and the frequent severity of the symptoms, they should not hastily condemn as criminal a medical man who, called to act in a sudden and dangerous emergency of a kind he has probably never seen before, made a mistake, even though the consequences of that mistake be terrible; and if they would hesitate before condemning a medical man, still less should they judge harshly the less informed midwife.

The PRESIDENT felt obliged to say that while in any individual case the circumstances would require most careful consideration and no hasty judgment should be passed on anyone, whether midwife or medical practitioner, under whose care such an occurrence took place, yet the avulsion of a whole uterus, inverted or non-inverted, must always be regarded as a proceeding of the gravest character and involving a very serious responsibility.

Dr. JOHN T. GRIFFITH, in referring to the different modes by which inversion of the uterus might be produced, said he had seen a case of post-partum hæmorrhage in consultation with a practitioner who, mistaking an internal fibroid with rather a broad base for a portion of adherent placenta, had rather hazarded bringing about that result, by the traction he had employed to remove it.

Dr. BRUNTON said that from a medico legal point of view he differed from the last speaker with reference to culpability in

removing a recently inverted uterus, because as there was an invariable negative sign in inversion, viz. the absence of the uterine tumour (about the size of the fœtal head) from above the symphysis, if the practitioner did not satisfy himself on this point by careful examination and proceeded to operate, the law would look upon him as incompetent and most likely criminal.

Dr. BARNES said it was easy to condemn a man for mistake unjustly. The case was that the uterus might be, by natural efforts or aided by slight manipulations not culpable, entirely detached. Casper mentions a case in which the broad ligaments even were torn through by spontaneous force. Thus the uterus lying loose, the hand introduced to remove the placenta, the whole uterus might come away and the practitioner not be in fault. Those whose experience was largest would, he felt sure, be those who would judge the actors in such cases with the most leniency.

Mr. WALTERS, in reply, said that the omentum, after becoming highly vascular, slowly disintegrated by molecular death, and disappeared. He did not receive the uterus until many days had elapsed, and consequently no microscopical examination of its fibres was made. It, however, looked perfectly healthy and of quite average thickness throughout its walls. No penal action was taken against the midwife; and he was thankful this was so, as, although he believed great violence was used, he should have given much stronger and positive evidence against the woman than subsequent study of the histories of these cases would have justified. Comment had been made on the various ways in which, during operative procedure, the uterus might be detached from its connections, but one mode had not been mentioned, viz. in the attempted introduction of the hand within the uterus, either for turning or to remove retained secundines, the organ might be forced up and the tissues of the cervix or vagina, if friable, torn through. He would feel greatly obliged if Fellows would bring to his notice any account of similar cases not included in his paper.

NOVEMBER 5TH, 1884.

HENRY GERVIS, M.D., President, in the Chair.

Present—69 Fellows and 5 Visitors.

Books were presented by Dr. Murphy, Dr. Playfair, the Clinical Society of London, and the Smithsonian Institution.

Thomas Johnston English, M.D.; Druce J. Slater, M.B.; and Septimus Sunderland, M.D., were admitted Fellows of the Society.

Reginald Maples, L.R.C.P. Ed. (Kingsclere), was declared admitted.

The following gentlemen were elected Fellows of the Society :—Robert W. S. Barraclough, M.D. (Herne Hill); Alexander Ford, L.R.C.P. Ed. (Harrogate); Harry John Forster, L.R.C.S. I.; Walter Greene, L.R.C.P. Lond. (Wallingford); George Knapton, L.R.C.P. Ed. (Southampton); Henry Ambrose Lediard, M.D. (Carlisle); James Murray Smith, M.B. (Romford); Edmond Sinclair Stevenson, L.R.C.P. Ed. (Cape of Good Hope); and James Troutbeck, M.B. Ed. (Bushey Heath).

The following gentlemen were proposed for election :—Thomas Rutherford Adams, M.D. (Croydon); Frederick William Gibbon, L.S.A. (South Shields); Charles John Gibb, M.D. (Newcastle-on-Tyne); William Gowans, F.R.C.S. Ed. (South Shields); Charles Harry Hough, M.R.C.S. Eng. (Derby); Robert Nichols Ingle, M.D.

(Cambridge); John Arthur Irwin, M.A., M.D. (New York); John James Powell, L.R.C.P. Lond. (Weybridge); Richard Francis Starkie, M.D., M.C.L.; Percival Humble Watson, L.R.C.P. Lond. (Newcastle-on-Tyne); and Ernest Wedmore, M.B. Cantab. (Bristol).

TUBAL FŒTATION, REMOVED BY ABDOMINAL SECTION.

Dr. Sydney Jones exhibited for Mr. Lawson Tait a specimen of tubal fœtation which ruptured at about the eighth week, and was removed by abdominal section on July 23rd. The notes of the cases had been furnished to him by Mr. Tait, who regretted his inability to attend the meeting, and that he had not been able to obtain more complete details of the previous history of the patient.

"Isabella H—, æt. 28, first menstruated at the age of 16. Always suffered pain at the periods. Married at 21 and had one child when 22 years of age. Pain at the menstrual periods was always worse after the confinement; the discharge irregular and scanty. The last period prior to operation ceased on April 13th, 1884. When sent to Mr. Tait on July 18th by Dr. Gwinnett Sharp she was suffering intense pelvic pain and was unable to maintain the erect posture when walking. She had been confined to bed for about a fortnight with 'inflammation.' The pain came on suddenly.

"Upon examination a large tender mass was found on the left side of the uterus and fixing that organ.

"The abdomen was opened on July 23rd and a tumour of the left Fallopian tube found, also a quantity of recent blood-clot lying loose in the pelvis with some bloody serum. The tube and ovary were adherent, were removed with some difficulty, and found to contain an ovum of about the tenth week. The pelvis was drained for three

days and the patient made an easy and uninterrupted recovery and went home on August 18th."

To these notes of Mr. Tait's he might add that the patient was thin and looked worn, the pulse was rapid, feeble, but not flickering; the temperature was slightly above normal. He made a vaginal examination before Mr. Tait operated, and felt a lump behind the uterus which resembled very strongly a retroflexed and swollen fundus. The os was slightly patent and drawn up a little behind the symphysis. There was no general peritonitis. The blood-clot was very dark and Mr. Tait worked it out with a stream of water from a jug and syphon-tube. The right ovary with part of the tube was also removed as it was somewhat enlarged and unhealthy-looking.

It is but fair to add that a correct diagnosis was not made. Mr. Tait thought that he had to deal with a case of pelvic suppuration. This error might possibly have been avoided had more precise information of the early symptoms and signs been procurable. No mention appears to have been made of a state of collapse following the onset of acute pain. This condition was, he thought, almost always, if not always, present in a greater or less degree in cases of ruptured tubal pregnancy.

Dr. Heywood Smith asked whether there were not sufficient symptoms of pregnancy by which to have made a correct diagnosis, as at that period of pregnancy there should have been?

VASCULAR FIBRO-MYOMA OF THE UTERUS.

Mr. Knowsley Thornton showed a large vascular fibro-myoma of the uterus with cystic tumours of both ovaries, each about the size of a small cocoa-nut. These specimens he had removed by supra-vaginal hysterectomy from a patient, æt. 33, at the Samaritan Hospital on October 31st. The tumour was of unusually rapid growth for a fibro-

myoma, and he was uncertain when he commenced the operation whether he had to deal with a sarcoma of the ovary or a fibro-myoma of the uterus. There was one point of great interest, in relation to the advanced cystic degeneration of both ovaries, that the periods, which were too free at first, had been and were still getting more and more scanty, in spite of the rapid growth of this very vascular uterine tumour. Both tubes were quite healthy, but the ovarian vessels were enormously enlarged on both sides. The patient was suffering from cardiac disease and albuminuria before the operation, but, in spite of these formidable complications, was progressing satisfactorily, the albuminuria steadily diminishing.

SOFT MYOMA OF THE UTERUS SHOWING EARLY CYSTIC DEGENERATION, REMOVED BY HYSTEROTOMY.

Dr. James H. Aveling exhibited this specimen.

The patient from whom the tumour was removed was a single woman, æt. 42. The abdomen had been increasing in size for three years. Lately it had grown rapidly. Koeberlé's clamp was used and the stump was seared by Paquelin's cautery and painted afterwards with iodised phenol until it separated on the eighth day after the operation.

Diagnosis was rendered difficult in this case owing to the soft fluctuating character of the tumour.

The operation was performed three weeks since and the patient is now convalescent.

PROLAPSED ADHERENT OVARIES.

Mr. W. S. Griffith showed a specimen of a uterus and Douglas's pouch containing prolapsed adherent ovaries.

The uterus was retroverted, and behind it, lying about an inch from the apex of the pouch, were the ovaries in contact and adherent to each other. At the point of contact the same adhesion that united them also united the posterior wall of the uterus to the posterior wall of Douglas's pouch. The left ovary had no other adhesion, but the right was extensively adherent on its under surface. The method of prolapse differed in the two ovaries, for whilst the convex free border of each looked inwards and the hilum or attached border externally, they had rotated on their long axes in opposite directions, so that the upper surface of the right ovary looked upwards and backwards, that of the left looked upwards and forwards.

It appeared that the right ovary being inflamed, prolapsed and formed adhesions, and the left having come in contact with it formed an adhesion at the point of contact.

The specimen was obtained from the body of a woman who died at the age of fifty, and from whose friends no clinical uterine history could be obtained. Her youngest child was fifteen years of age and she had passed the menopause.

The PRESIDENT remarked that the recent clinical history of the patient would have been of much interest. Few cases gave more trouble than those of prolapsed and inflamed ovaries, and to know the symptoms which had existed in a case such as the present after the occurrence of the menopause would have been of considerable value.

SURGICAL NEEDLES AND HOLDER.

DR. BANTOCK exhibited the surgical needles and holder invented by Dr. Hagedorn, of Magdeburg.

Dr. FANCOURT BARNES said the needle-holder shown by Dr. Bantock was similar to that used by Professor Neugebauer for vesico-vaginal fistulæ.

Mr. C. E. JENNINGS could testify to the great value of the needles, which he had used three times for intestinal resection. An objection to the needle-holder lay in the fact that being

of complicated mechanism it was difficult to cleanse, and sepsis might follow its use.

PESSARY FOR RETROVERSION AND PROLAPSE.

Dr. Godson showed a new pessary for retroversion and prolapse manufactured by Messrs. Arnold & Sons. It was in all respects like Greenhalgh's spring pessary except that the upper part was dilated and filled with glycerine, so as to form a very soft cushion. Similar shaped pessaries had been made distended with air, but it had been found that this always made its escape in a very short time leaving a hard wrinkled cushion.

Dr. Braxton Hicks remarked that he had found the same trouble with the air pad, and had corrected it by making the pad with solid rubber.

ON THE SEVERE OR SO-CALLED "UNCONTROLLABLE" VOMITING OF PREGNANCY.

By Graily Hewitt, M.D., F.R.C.P.,

PROFESSOR OF MIDWIFERY AND DISEASES OF WOMEN, UNIVERSITY COLLEGE; OBSTETRIC PHYSICIAN TO THE HOSPITAL.

I propose on this occasion to lay before the Society certain facts and considerations relating to the obstinate or, as it has been termed, the uncontrollable vomiting of pregnancy.

The disease is not very common, but it is a very serious one, and has on many occasions been the subject of discussion. It cannot be said that its nature and causes have been understood, for although various theories have been advanced as to its etiology and pathology, the profession at large has not adopted any one of them.

The history of intractable or fatal vomiting in pregnancy is traced with difficulty more than fifty or sixty years back. It is stated by Anquetin,* who in 1865 published an admirable historical survey of the subject, that in 1813 Dr. Simmons, of London, had induced premature labour in order to save the patient's life. Numerous cases have been recorded during the last fifty years in which death has resulted from, or in connection with, excessive and severe vomiting in pregnancy. The largest number of fatal cases observed by any individual is twenty. These twenty cases were published by Dubois in the year 1852, and, as is well known, since that period the practice of inducing artificial abortion as a means of escape from the

* "Des vomissements incoërcibles pendant la grossesse," 'Rev. Méd.,' 1865.

difficulty has been not uncommonly adopted, and its value as a method of treatment has been frequently discussed. The literature of the subject comprises for the most part records of observations made in one, in two, or three, or a very few cases only; opportunities for making a series of observations occurring to few practitioners, owing to the rarity of the disease.

We have pathological and clinical evidence on the subject of two kinds: 1. The records of cases in which the fatal result was thought due to certain pathological changes in other organs than the uterus discovered after death, or to what may be termed general disorder of the system. 2. The records of cases in which the uterus was during life or after death found to be in an abnormal state.

In a certain number of cases of severe vomiting in pregnancy with fatal result, and where autopsies have been made, various lesions have been met with which were considered at the time sufficient to account for the obstinate sickness observed. Anquetin gives the following as cases of this kind:

Valleix—chronic gastritis.

Taurin—redness and softening of the stomach.

Dubois, Chomel, and Sandras—same lesion.

Depaul—cancer of pylorus.

Pipelet—epigastric hernia.

Lancereaux—atrophy of muscular system and of cellulo-adipose tissues.

Trousseau—scirrhous induration near pylorus.

Schutbach—tumour near pylorus size of egg, in a state of ulceration.

Schilachigla—cases of tubercle of lung.

Rayer and Depaul—tubercle of brain.

Sandras—alterations of mesenteric glands.

Blot—alterations of glands of epigastrium.

Chomel—fatty degeneration of liver.

Taurin—biliary calculi.

Lobstein—redness of semilunar ganglia of solar plexus.

Sandras—congestion of meninges.

Burns gives a case where a biliary calculus was found impacted.

Dr. Barnes,* in his recently published elaborate work on obstetrics, gives the following cases of uncontrollable vomiting brought about by *emotion*:—One, a lady who, pregnant for the fifth time, underwent at one month of pregnancy severe family trials, came home exhausted, was attacked with unremitting vomiting, and died in a few days. He has seen other cases induced by severe mental shock also ending fatally, spite of induction of abortion. In another case incoercible vomiting set in at between two and three months: her husband committed murder and suicide, and she further found herself syphilised. She implored that abortion might be induced; this was not done, and she died in a week exhausted.

Further examples of the influence of what may be termed a general cause for the vomiting mentioned by Dr. Barnes, are *intercurrent disease, whooping cough*, and *alcoholism*, which he has known to produce severe vomiting in pregnancy. Dr. Barnes also mentions *albuminuria*, first noted as observed in such cases by Sir J. Simpson. As regards albuminuria, it seems probable, however, that it is rather an effect than a cause of the disease. Horwitz, of St. Petersburgh, whose essay on the uncontrollable vomiting of pregnancy I shall allude to presently, considers that albuminuria may be the result of the starvation which is present in the severe cases. He mentions the observations of Manassein, who found that in animals suffering from hunger albumen was always found in the urine, as bearing on this question; but there appear to be conflicting statements as to whether albumen is or is not constantly observed in the obstinate vomiting of pregnancy.

My particular object on the present occasion is to investigate the question as to the influence of morbid condition of the uterus itself in giving rise to the disease now under consideration, and to ascertain how far it can be

* 'Obstetric Medicine and Surgery.' By R. Barnes and Fancourt Barnes. London, 1884, p. 364.

explained by a correct appreciation of these morbid or altered conditions of the uterus.

The following remarks by Anquetin appear worthy to be quoted in this connection:

"Concerning those cases which have been recorded, and in which lesions of the uterus were found to exist, it is impossible these lesions were produced by the vomiting, and it is evident that they may produce vomiting when associated with pregnancy. We know that certain functional processes, as menstruation and coitus, may produce vomiting. Hence we ought not to be surprised that whatever modifies the sensibility of the uterus may produce the same effect, especially during pregnancy, when the over-excitation of the uterine system is already a sufficient cause for vomiting. Another concluding reason for recognising the lesions of the uterus as causes of obstinate vomiting is that, in every case where they have been known to exist during life, and when it has been possible to remedy them, the vomiting has at once ceased."

A careful survey of the available recorded cases appears to lead to the unavoidable conclusion that we have to look to the state of the uterus itself, and to the altered conditions of that organ during pregnancy, to explain adequately the observed facts. During the twenty years which have elapsed since Anquetin published his essay on the subject many very important facts have come to light, and they justify his above quoted remarks as to the importance of altered conditions of the uterus in the study of the etiology of this grave disorder.

The earlier records of cases were very imperfect, the state of the uterus being rarely described and often not even mentioned, but a considerable number of accurately recorded details of the condition of the uterus have been recorded of late years, and I have done my best to arrange them in such a form as to admit of some useful generalisations on the subject.

In the year 1844 Dance, for the first time, I believe, described the post-mortem condition of the uterus in two

cases of fatal vomiting in pregnancy.* In one case he found the uterine wall excessively thin and intensely congested. In a second case pus was found between the placenta and uterine wall, with pseudo-membranous formations outside the decidua. One of these cases of Dance's was under the care of Dubois, who states that during life the uterus was found very tender to the touch internally and externally.

In 1852 Stoltz, of Strasburg, described a case in which the uterus was found anteverted. This is, I believe, the first case in which an alteration in the position of the uterus was noted at all in conjunction with the presence of excessive vomiting in pregnancy, and it is a most interesting one. The patient was in her second pregnancy. The sickness very severe. Stoltz was sent for and saw her in the third month, having the idea that artificial abortion would be required. The cervix uteri was found lying against the posterior vaginal wall. The uterus occupied the small pelvis. He tried to raise the uterus and succeeded so far that it projected at the hypogastrium. This was effected without giving much pain or producing any sickness. Moving the uterus seemed to have done good. Induction of abortion was discussed, but postponed in order to consult relatives. Next day the vomiting was very much less, and great improvement noted for a time ; on the fifth day, however, the vomiting returned with great severity. Stoltz was again sent for in order to induce abortion, but he found the patient *in extremis* and nothing was done. Five days later death occurred. This is evidently a case of anteversion of the gravid uterus, and the sickness was relieved for a time by raising the uterus. Probably had the elevation of the uterus been maintained a different result would have been recorded. The next case is also by Stoltz and is described by him in the same paper. This second case of Stoltz's is the one which has been generally quoted, but the first

* Full references to these and the following cases will be found in the "Table of Cases" at p. 292.

case has not been cited, so far as I am aware, in discussing this subject. The second case was one of retroversion of the gravid uterus. The patient was very ill, and pregnancy not at first suspected. The uterus was found retroverted but moveable, and the organ had been several times replaced by the finger; each time the sickness was relieved by such replacement, but the uterus could not be maintained in its proper position. Finally, Stoltz introduced a catheter and straightened the organ with the object also of inducing abortion. The catheter was kept *in utero* till abortion occurred. Result good; succeeding pregnancy natural.

The next case recorded, in which the state of the uterus is noted, is the very interesting one recorded by Briau in 1856. In this instance Briau called in Professor Moreau who found the uterus incarcerated in the pelvis in a partly retroverted state. He replaced it and the patient was at once rescued from impending death.

In 1858 Ulrich recorded a most important case of anteflexion of the uterus to a marked degree, and the diagnosis was confirmed by the results of the post-mortem examination. Ulrich gave his opinion "that the bending of the uterus and consequent hindrance to the regular extension and growth of the uterus, was the influence producing the obstinate vomiting.

In 1871 I read a paper before this Society in which it was stated that I had on several occasions observed flexion of the uterus during pregnancy associated with severe sickness, and I reported a case observed during life in which considerable anteflexion was noted, the patient suffering severely from sickness, which soon disappeared on keeping the patient horizontal, and thus favouring the ascent of the uterus out of the pelvis. I stated also that I had been led to the conclusion that the sickness of pregnancy in its slighter as well as in its severer forms was due to flexion of the uterus. And also that this idea was suggested in the first instance by observing the very great frequency with which severe flexions in the non-

gravid state are liable to be attended with troublesome sickness

In 1872 I saw a case in which retroflexion was present, the subject of the case being the wife of a medical man.

In this case retroflexion had existed prior to pregnancy, as I had seen her professionally previously and known this to be the case. Reposition of the uterus cured the sickness, but it recurred violently later on when the pessary used was found to have ceased to do its work. A second replacement, equally successful, but considerable difficulty was found in keeping uterus upright. Abortion occurred at just over six months.

In 1872 Dr. Æneas Munro published a very important case in which intense vomiting was associated with acute anteflexion of the uterus, which was so fixed that it could not be moved upwards. Artificial abortion was induced. Recovery. Dr. Munro stated that the case "in a very remarkable manner bears out to a certain extent what Dr. Hewitt has said in the matter."

In 1873 Dr. McClintock reports a case in which life was in danger from most severe sickness. The body of the uterus was felt per vaginam to be enlarged and slightly anteverted, to use Dr. McClintock's own words, "as is often found to be the case at this period of utero-gestation." Abortion was produced with successful issue. I give this case here although, as is apparent, Dr. McClintock himself did not consider the position of the uterus abnormal.

In 1874 a case was observed in University College Hospital of severe nausea and vomiting associated with anteflexion, in which the sickness was relieved as the uterus became unfolded and raised up. This case was observed by Dr. Skerritt, then acting as my assistant.

In 1875 Dr. Copeman began to record a series of cases, in the first of which he had accidentally found the severe sickness of pregnancy relieved by dilating the os and cervix uteri. In one of the first of these cases the uterus was somewhat anteverted ; in another case the uterus was anteverted so as to allow the head to be felt below the

level of the os uteri. He raised the body of the uterus by gentle pressure out of the pelvis and the vomiting at once disappeared. In a third case, published in 1878 by Dr. Copeman, the fundus was tender on pressure, and it was displaced forwards. The displacement was rectified. Next day sickness less. Os once slightly dilated with fingers; sickness cured. In a fourth case Dr. Copeman, 1878, stated that he found the fundus displaced forwards. He rectified the displacement and the next day the sickness was less. He slightly dilated the os with the finger and there was no more vomiting.

The following case I record now for the first time :— The sickness was not so alarming but it was severe. The patient was the wife of a medical man in Essex, æt. 24. I saw her first in 1878 during an attack of pelvic cellulitis following the fourth labour. Not very long afterwards she consulted me suffering from severe vomiting with great pain and distress in the pelvic region. She was now in the sixth month of pregnancy. The cervix uteri was far back in the right posterior corner of the pelvis, the uterus anteflexed, lying close to the left ramus of pubes and jammed in the pelvis. The opinion given was that the abnormal position of the uterus was probably due to adhesions resulting from the pelvic cellulitis. The patient was kept in the horizontal position and the uterine body slowly rose out of the pelvis, the sickness disappearing. A miscarriage, however, occurred at seven months. This patient has had two children since at term. The succeeding pregnancy was attended in early months by symptoms like those above described, but in the last pregnancy no unusual symptoms were observed. The uterus is stated to be now still somewhat displaced.

Another case I now publish for the first time in full. Mrs. —, æt. 33, first consulted me in 1877. She had had four children and since the last confinement had been very weakly. I found her suffering from anteflexion of the uterus with great congestive hypertrophy of the os and cervix. After some months she improved very much,

and about a year after I first saw her she became pregnant but had a very early abortion. Shortly afterwards she became again pregnant. Almost from the first there was sickness. At the seventh week it had become very serious and severe. The cervix uteri was at this time much increased in size and thickness and very firm and dense in consistence. The uterine body was tilted forwards but not very greatly so, for a pessary had been worn to obviate this tendency. It was removed as the sickness became worse, but as every day the sickness nevertheless increased in severity it was again employed, without effect however. And as the patient's strength was failing I decided to dilate the cervix after the plan employed by Dr. Copeman, with the view of arresting the sickness, or as a first stage in the induction of abortion should the sickness undergo no mitigation. For dilating the cervix I employed a two-bladed metallic dilator which acts with great exactness and force. This instrument was one used by the late Dr. Rigby. The cervix was so dense that the greatest difficulty was experienced in dilating it, and eight hours were spent, including frequent intervals of rest, in enlarging the cervix so as to admit the first joint of the little finger. The following day the sickness had become relieved. In the evening labour pains set in and abortion occurred two days after dilating the cervix. The sickness was no longer troublesome, and for a time hopes were entertained of saving the patient's life. She, however, sank, apparently from exhaustion, a fortnight afterwards. In this case the conclusion forced upon me was that the severe sickness was associated with the dense thickened state of the cervix, and this state of the cervix was coupled with an imperfectly cured anteflexion of the uterus.

In 1873 I saw a patient of Mr. Lionel Powell, of Melton Mowbray, æt. 28, who was in the third month of her fourth pregnancy and suffering from severe sickness. I found the uterus much retroflexed but not impacted in the pelvis. The uterus became reduced on keeping the

patient in the prone position, and the sickness shortly ceased. She was delivered at full term.

In 1877 Mrs. —, æt. 33, who had had eight children and three miscarriages, consulted me for very severe sickness with intense mental depression. The os uteri was swollen, the uterus anteflexed. Tents had been employed to bring on abortion. The patient had suffered from similar symptoms in previous pregnancies. Result not known.

In 1879 Mrs. —, æt. 34, consulted me for constant sickness. She was three months pregnant. Four children. I found the os far back, squeezed against the sacrum, the body of the uterus anteflexed and jammed over behind the pubes. She was ordered to rest in bed for a week, and suitably fed. At the end of a fortnight sickness only observed once a day, in a month moving about freely without sickness. Delivery at term. In this case I should have employed reduction of the uterus at once, but the patient resided in the country and it was thought best to try simple measures first.

I have next to direct the attention of the Society to a most valuable paper on the subject now under discussion by Professor Horwitz,* of St. Petersburg, published in 1883, and in which he relates particulars of ten cases of this disease which have fallen under his own observation, these cases being reported in such a manner that they constitute a most important addition to the scanty recorded materials. In all the ten cases the vomiting was of a most serious character.

It would be difficult in a short space to give a *résumé* of the whole of Horwitz's paper. I propose therefore to limit myself to offering a brief analysis of the cases related by him.

Case 1.—Primipara; æt. 22. Severe vomiting set in at the tenth week, together with presence of a peculiarly

* "Ueber das unstillbare Erbrechen der Schwangeren," 'Zeitsch. f. Geburtsh. und Gynaekologie,' Band ix, Heft 1, 1883, p. 110. Translated from the original Russian, published 1882.

unpleasant smell (perceived by the patient). Examination when scarcely four months pregnant, portio vaginalis soft, somewhat thickened, inclined directly backwards, the fundus "markedly anteverted, lies on posterior surface of symphysis pubis, can only be redressed with very great difficulty, giving the patient much pain, slight flexion in the anterior uterine well." Attempts made for some days to improve position of uterus by tampons of sponge. Finally abortion occurred and relief followed.

Case 2.—Æt. 24. A previous abortion. Uncontrollable vomiting set in at tenth week of second pregnancy. Peculiar sensitiveness of organ of smell. On examination uterus appeared larger than it should be and especially wide at the fundus, which was "very decidedly anteverted." Uterus replaced with difficulty, giving patient much pain. Body of uterus softish. Cervix rather hard, directed backwards. The patient was so ill that artificial abortion was suggested. It was not carried out. Death a few days later.

Case 3.—Primipara; suffered while single from dysmenorrhœa; vomiting set in three months after beginning of pregnancy; a little later rigors and elevation of temperature with severe abdominal pain occurred, and the vomiting became intense. Examination made. Cervix uteri far back to the left and difficult to reach, uterus as large as at four months (patient being three months pregnant), perimetric exudation of rather firm consistence felt at the left side, uterus absolutely immoveable and very sensitive. Leeches, cold compresses, and ice externally, hot vaginal injections, mercury, and nutritive enemata employed. After four days sickness less, cure, delivery at term.

Case 4.—Æt. 24. Patient had suffered from symptoms simulating chronic gastric catarrh for three years, recurrence of pregnancy followed gradually by access of vomiting, which became uncontrollable. Portio vaginalis much

elongated, thickened, directed backwards; uterus much sunk down anteriorly, redression very difficult, a decided flexion (Einknickung) on anterior surface. Artificial abortion induced; result diminution of sickness, but death followed from exhaustion three days after. The stomach, on post-mortem examination, showed small cicatrices, results of ulceration, together with thickening and proliferation of tissues in the vicinity; also a constriction, dividing the stomach into two parts, and thickening of the walls corresponding to the constriction. Horwitz suggests the term "gastritis phlegmonosa" as descriptive of the appearances presented.

Case 5.—Æt. 29. Has had five natural labours. Vomiting set in soon after quickening, and soon became severe (perniciosus), accompanied with diarrhœa. In right hypochondrium is a tumour, ·06 × ·02 – ·03, slightly moveable, hard, not sensitive. Body of uterus to the left side, and of a size corresponding to eight months' gestation. Labour set in two days after admission into hospital, child born alive. Death three days after from exhaustion, with symptoms of puerperal fever. Post mortem the stomach was found thickened, two tumours the size of walnuts at the cardiac end; the large intestine presented a number of pediculated, two to three inch long polypi of greyish colour, size of a walnut or pigeon's egg, especially large in the descending colon and sigmoid flexure. Mucous membrane of small intestine much hypertrophied.

Case 6.—Æt 30. Multipara; has had four children. Since last confinement suffered from painful and profuse menstruation, menstruation ceased, and vomiting assuming severe form soon set in. When seen by Horwitz great emaciation, severe pain in hypogastrium, especially left side, intensified by movement and by vomiting. Patient sustained for last three weeks by enemata. On examination reddish mucus in vagina, portio vaginalis short, thick, soft, displaced to the back more than normal; os admits

finger, the whole uterus is considerably enlarged and in a state of ante- and right lateral version; fundus two fingers' breadth above pubes; an irregular tumour, sensitive to touch, is felt on left side of pelvis behind uterus. It was concluded (erroneously) that extra uterine pregnancy was present. Operative treatment by laparotomy was considered unadvisable; later on, however, laparotomy was performed by another practitioner and gave rise to a fatal hæmorrhage.

Case 7.—Æt. 24. Vomiting set in after one month's pregnancy. When seen at mid-pregnancy there had been uncontrollable vomiting for five weeks. The fundus reaches two and a half fingers' breadth above pubes, very sensitive to touch; portio vaginalis longer than normal, conical, directed backwards; whole uterus softish, very sensitive, and anteverted. Uterus redressed with great difficulty, occasioning much pain; sponges were employed to replace uterus, retained five hours. Following day treatment repeated. After four attempts condition of patient no better. Artificial abortion decided on; brought about by dilatation of cervix with sponge, and subsequently rupture of membranes by sound. Vomiting ceased during operation. Patient recovered. Two days afterwards uterus found decidedly anteverted.

Case 8.—Æt. 31. Formerly treated for dysmenorrhœa, menorrhagia, and sterility. There had been considerable anteflexion, and severe cervical endometritis. Treatment was successful, patient conceived, but aborted at third month; symptoms returned. Patient went abroad, had a child, subsequently returned. Patient now two and a half months pregnant, suffering from severe vomiting; portio vaginalis much thickened, softish, displaced much backwards and to left; the fundus much larger than it should be, rather hard, bent forwards and to the right side. Speculum shows decided redness of cervix and eversion of anterior lip especially. Treatment: sedatives, some scarification of anterior lip and application of caustic,

nutritive enemata, &c. Condition after two weeks' treatment worse. Artificial abortion decided on, procured by use of sponge and sound, and concluded in three days. Patient recovered well. [It is not stated whether redression was attempted or not.]

Case 9.—Æt. 20. Primipara. Nausea set in early, severe vomiting quickly followed, and patient's condition became very serious. Ordinary measures useless. Portio vaginalis conical, rather hard, lies very low, and only slightly deviating backwards; uterus corresponds to two and a half months' gestation, very decided anteflexion; fundus very sensitive to touch, especially on attempting correction of its position. Hot douches prescribed. After two days no improvement; vomiting incessant, great exhaustion, pain in abdomen. Copeman's treatment was attempted; bougies used to dilate the cervix, and after a time finger could be introduced. Following day cervix still more dilated, effect on patient's condition trifling. Two days later death imminent. Artificial abortion was then induced, and ended in two days. The vomiting occurred a few times after emptying of uterus and then ceased. Attack of perimetritis four days later from which patient slowly recovered.

Case 10.—Æt. 36. Four children, last four years ago, since which had suffered from pains, leucorrhœa, and dysmenorrhœa. Vomiting set in seven weeks after commencement of pregnancy, and speedily became severe and serious in its effects. Patient much emaciated, abdomen very tender; the fundus uteri two fingers' breadth above pubes, more to right side; portio vaginalis thick, elongated, directed decidedly to the left and backwards so that the os is reached with much difficulty; tissues of uterine walls, especially fundus, thickened. The attempt to redress the uterus produces severe pain. The author considered the case one of pregnancy complicated with chronic parenchymatous metritis and marked anteversion. Replacement of the uterus was attempted, a

sponge placed under the portio vaginalis, hot vaginal douches every three hours, nutrient enemata and horizontal position. Some days later patient worse. Copeman's dilatation of the cervix was then tried, and with temporary good results. This operation repeated next day, but failed to produce an effect. The fifth day after first visit artificial abortion decided to be necessary, accomplished in two days and a half. The vomiting ceased, but five hours later patient seized with severe constriction at the chest, and breathlessness and death speedily occurred. Horwitz considers it probable that death occurred from embolism of the pulmonary artery.

The ten cases related by Horwitz are truly of remarkable interest in connection with the subject now under discussion. The particular interest attaching to them is the very great frequency with which altered position and shape of the uterus is described. There are ten cases. We must exclude Case 5 for the moment from the consideration; this was a case in which the patient was in the seventh month of pregnancy when the sickness set in; the uterus was high up in the abdomen; the patient died of puerperal fever after a spontaneous premature labour at eight months, and numerous polypoid growths were found in stomach and intestine. This leaves a balance of nine cases, and in every one of the nine cases the shape or position of the uterus was notably altered; not only so, but this displacement or distortion was so marked that mechanical efforts were made in seven of the cases to place the uterus in a better position. In one of the other cases, where no such mechanical elevation was attempted, the patient was thought to be the subject of extra-uterine pregnancy, which proved to be an erroneous diagnosis. In this case the uterus was obliquely anteflexed, but there was a tumour behind which obscured the diagnosis. In all of the nine cases the uterus was anteflexed or anteverted, the patient's condition became critical in the third or fourth month. In one case there was an exuda-

tion (pelvic cellulitis) behind and on one side of the uterus. It is not expressly stated that the uterus was anteverted in this case, but the os was very far back and difficult to reach. In most of the cases the uterus was very sensitive to the touch, and in most of them the author considers that the uterine walls and cervix were in a state of parenchymatous inflammation. The facts stated by Professor Horwitz in reference to these cases, facts which I have carefully embodied in the above abstracted accounts of his cases, are very striking in reference to the association of the displacements with the sickness. The conclusions drawn from the cases by Professor Horwitz are, however, of a very contradictory character as will be apparent.

In discussing the pathology of the affection Horwitz criticises the views I had expressed on this subject in 1871 in these words: "In reference to the opinion of Graily Hewitt that in the uncontrollable vomiting of pregnancy he had frequently found the cause to be presence of flexions and versions of the uterus, he appears to overestimate the frequency with which alterations in the shape of the uterus are associated with hyperemesis of pregnancy," p. 138.

Another quotation: "The hyperemesis is connected with the presence of an inflammatory condition of some portion of the genital organs but especially in the uterus. The uterus is generally found larger than it should be for the period of pregnancy reached. This can only be explained by presence of parenchymatous inflammation of the uterine walls. Hence arises the generally present hyperæsthesia of the uterus and the more or less immobility of it. Thereby is the uterus generally so anteverted that the fundus is made to rest on the posterior surface of the symphysis pubis. It is very difficult or quite impossible to redress the uterus under such circumstances. The question how and when the parenchymatous inflammatory condition arises is very difficult to answer. Probably it commences before the beginning of pregnancy,

for we can scarcely believe that in so short a time the inflammatory action could produce such marked effects," p. 139.

Again another quotation, "We have in most cases to deal with versions of the uterus, and sometimes to such a degree that the fundus uteri touches the symphysis and is extremely difficult to redress; sometimes the uterus appears to be wedged in the pelvis. The change of position of the uterus in such an extreme degree cannot be denied to have the first significance, because it must have a powerful disturbing effect on the circulation in the already parenchymatous inflammatory condition of the uterus. In such cases it is rationally and imperatively indicated to rectify the abnormal position. We have been convinced by several observations that the direct redression of the uterus is the most beneficial measure that can be adopted," p. 170.

The first quotation I have given is completely contradicted by the facts recorded by Professor Horwitz in his own cases, and the first quotation is entirely contradictory in substance to the conclusions enunciated by him in the second and third quotations. With reference to the nature of the condition described by him as parenchymatous inflammation of the uterine walls and the displacement associated with it I shall have occasion to say something later on.

Dr. J. Courtenay Haslett quite recently (March, 1884) reports a very interesting case. The patient, a multipara, had suffered from dysuria and bearing-down pains for some time. The sickness set in two months after pregnancy began. It was incessant. The uterus was found in a state of anteflexion, the fundus felt as a rounded tumour the size of a turkey's egg. Efforts to replace the uterus unsuccessful. Five days later it was determined to raise up the uterus and provoke abortion. Catheter introduced four inches without stilette. Uterus then raised up. Abortion following day. Recovery.

Mr. Robert Davis, of Low Fell, Gateshead-on-Tyne,

contributes a valuable case (March, 1884). The patient was a primipara æt. 23, pregnant two months, had been sick for three weeks, suffered much from bearing-down and dysuria. The ordinary remedies tried for a week without effect, and she became much emaciated and too weak to get out of bed. Sickness very severe, only once relieved for six hours partially, by minim doses of ipecacuanha wine every quarter of an hour. Patient refused examination, but after four days longer consented. Uterus found anteflexed, pregnant, fundus tender, enlarged and firmly fixed at a lower level than the os. With considerable difficulty and much pain to the patient two fingers in the vagina with the assistance of the other hand over the pubes served to forcibly push up the fundus until both hands met behind the pubes. Patient left with hips raised. Vomiting ceased at once and food taken. Next day a cradle pessary was placed after the fundus had again been pushed from the position which it had to a comparatively slight extent resumed. Recovery. Removal of pessary later on. Pregnancy went to full time, child healthy. Has since borne three children, exhibiting similar symptoms but in decreasing degree in each pregnancy. Identical mechanical treatment has been adopted with desired result. Mr. Davis, who reports this case, comments on Dr. Haslett's case and with truth says : " Dr. Haslett advances no reason why the treatment should not have included the prevention of abortion instead of its production."

TABLE I.

TABLE I.—*Cases of severe vomiting in pregnancy in which*

Name, &c.	Age.	Previous history.	Primipara or multipara	Period of observation.	Duration, &c., of vomiting.	State of os and cervix uteri.
I	—	—	—	—	—	—
II	21	Single	Primipara	Fourth month	Persistent vomiting for two months	—
III	20	Single	Primipara probably	Second month	Diagnosis of pregnancy not made at first. Temporary relief from magnesia treatment	—
IV	22	Former pregnancy attended with troublesome symptoms	Second pregnancy	Third month	Vomiting for fifteen days, became most severe	Cervix found l on posterior ginal wall
V	19	—	Primipara	„	Vomiting set in early; pregnancy not at first suspected	Os directed wards near physis; coul brought readily
VI Madame X—	25	Thrown from carriage after her last confinement, leucorrhœa consequent	Third pregnancy	End of second month	Intense sickness, thirst, emaciation increasing	—

dition of the body of the uterus was observed and recorded.

Position and condition of the body of the uterus.	Treatment and results.	Authority.
—	Death. Pus found on external surface of decidua	Chomel (quoted by Anquetin).
—	Patient died unrelieved six weeks after admission. P.M. examination showed pseudo-membranous concretions between uterus and decidua. Between uterus and placenta a thick layer of concrete pus in yellow flakes. Placenta feebly adherent. Cervix in shape like glans penis, constricted at base	Dance (1st case), Report. Gen. d'Anat., et Phys., tom. iii, p. 70.
—	Death, unrelieved, six weeks after admission. P.M.—Uterus lax, like a bladder half filled with water. At middle of body walls scarcely half a line thick, unusually soft, and very much engorged with blood, giving uterine tissue a violet red colour, which extends to villosities of decidua	Dance (2nd case), loc. cit. Also reported by Dubois as one of his twenty cases
rus occupying the small lvis	Stoltz tried to raise uterus, and succeeded so far that it projected at hypogastrium, without giving much pain and without producing sickness. Moving the uterus seemed to have done good. Induction of abortion had been suggested. The day after vomiting diminished, and for a time patient much better. Five days later, however, vomiting set in with great intensity. Stoltz, called in to induce abortion, found patient too ill to allow of it. Death five days later	Stoltz, Strasburg (Case 1), Gaz. Méd., Juin, 1852.
roversion without fixa- n of uterus	Sickness temporarily suspended several times on replacement of uterus. Vagina narrow. Not found possible to retain uterus in proper position. Abortion was induced as only means of saving patient's life. Result successful. Next pregnancy good result	Stoltz (Case 2), Gaz. Méd., Juin, 1852.
rus in a state of incom- te retroversion, and in- cerated in the bony vis	Professor Moreau, who discovered the condition raised the uterus out of the pelvis by a skilful manœuvre. Immediate relief and cure	Briau (and Moreau) Gaz. Hebdom., July, 1856.

Name, &c.	Age.	Previous history.	Primipara or multipara	Period of observation.	Duration, &c., of vomiting.	State of os and cervix uteri.
VII Frau Freudenburg	34	Intercourse very painful	Primipara	End of third month	Vomiting began at six weeks, quickly more severe; acute epigastric spasms, great prostration	Cervix very high
VIII Seen with Dr. Royston	24	Menorrhagia; inability to dance without discomfort	„	Fourth month	Most severe during previous fortnight	Os uteri far bac vaginal roof muc depressed
IX Mrs. G—, wife of a medical practitioner	26	Known to have retroflexion of uterus previously	Fourth	Six weeks	Severe sickness	—
X	21	—	Primipara	Third month	Intense	—
XI	24	—	„	End of second month	Sickness most severe; life in danger a fortnight later	—
XII A. M—, U. Coll. Hosp.	21	Menstruation scanty, painful	„	Third month	Nausea and severe vomiting and hypogastric pain	Os very far back
XIII	—	—	—	—	Severe sickness	—

Position and condition of the body of the uterus.	Treatment and results.	Authority.
ne enlarged and doubled p body of the uterus felt ying behind right hori- ontal ramus of pubes. Uterus markedly ante- lexed. Position of flexion istinctly felt through oof of vagina	Attempts (many) made to replace dislocated uterus, all unsuccessful. Fruitless efforts also to introduce sound into uterus. Three weeks after admission to hospital state considered hopeless, even if uterus could have been emptied. Death end of fourth month. P.M. verified diagnosis. Uterine body 5¼ inches; flexion 3 inches from os. Under surface of uterus soft, upper condensed and firm. "The bending of the uterus, and consequent hindrance to the regular expansion and growth of the uterus, was the influence producing the obstinate vomiting"	Ulrich, Monatssch. für Geburtsk., 1858.
terus anteflexed, very low lown, not to be felt above ubes	Treatment mainly observance of horizontal position. Sickness soon disappeared. Delivery at term	Graily Hewitt, Obst. Trans., vol. xiii.
terus retroflexed	Hodge pessary employed. Relief of sickness. Recurrence of sickness, with jaundice and great depression, a month later, when pessary found to have slipped. Readjustment, followed by speedy relief. A month later again a recurrence of vomiting in most intense form from like cause; great difficulty in securing adjustment owing to restlessness of patient, but sickness always ceased when proper position secured. Abortion set in when just over six months	Graily Hewitt (date 1872), Dis. of Women, 4th ed., p. 365.
cute anteflexion of uterus, which was so fixed that it could not be moved upwards	Induction of artificial abortion. Recovery	Dr. Æneas Munro, Glas. Med. Journ., Aug., 1872.
ody of uterus not to be felt above pubes. *Per vag.*—The body of uterus enlarged and slightly anteverted, "as is often found to be the case at this period of utero-gestation"	Artificial abortion induced. Recovery	Dr. McClintock, Dub. Med. Journ., May, 1873.
nteflexion. Body of uterus much enlarged; felt a little more to the left side. The body of uterus just felt above brim	Patient in process of cure, the uterus was rising above brim, and when I saw her a few weeks later, after rest in horizontal position, uterus nearly normal. Sickness cured	Observed by Dr. Skerritt, under Dr. Graily Hewitt (1874), Dis. of Women, 4th ed., p. 367.
Some degree of anteversion	Dilatation of the os uteri. Good effect	Dr. Copeman, Brit. Med. Journ., May 15, 1875.

Name, &c.	Age.	Previous history.	Primipara or multipara	Period of observation.	Duration, &c., of vomiting.	State of os and cervix uteri.
XIV	—	Had lately taken violent exercise	Second	Five months	Very sick	Os corresponding with promontory of sacrum
XV	—	—	—	Third month	Severe and uncontrollable vomiting	—
XVI Mrs. R—, wife of a medical practitioner	24	Seen first by me for pelvic cellulitis after fourth labour	Fifth pregnancy	Sixth month	Severe vomiting; great pain and inability to walk	Cervix uteri far back in right posterior corner of pelvis
XVII Mrs. ——	33	Treated previously for chronic congestive hypertrophy of cervix and anteflexion; great general feebleness	Sixth pregnancy	At beginning	Sickness set in early; at seventh week had become so serious that life was threatened	Cervix very dense and hard, quite double normal diameter
XVIII Mrs. W—, sent by Dr. Powell, Melton Mowbray	28	—	Fourth	Third month	Severe sickness	Os far forward
XIX Mrs. ——	33	Eight children and three miscarriages	Twelfth pregnancy	Fourth month	Very severe sickness, intense mental depression	Os uteri swollen
XX Mrs. ——	34	Last child six years ago, since which unable to walk but very little. Treated for "ulceration"	Fifth pregnancy	Three months	Constant sickness	Os uteri far back, squeezed against sacrum
XXI	22	Menstruation early scanty, latterly more profuse	Primipara	Nearly four months	Very severe vomiting set in tenth week, also a curiously unpleasant smell (sensation)	Os soft, somewhat thickened, inclined directly backwards

Position and condition of the body of the uterus.	Treatment and results.	Authority.
Uterus anteverted so as to allow the head to be felt below the level of the os uteri	Body of uterus raised by gentle pressure out of the pelvis: vomiting at once disappeared	Dr. Copeman, Brit. Med. Journ., Nov., 1875.
Fundus tender on pressure; fundus displaced forwards	Displacement rectified. Sickness less next day. Os once slightly dilated with finger. Cure	Dr. Copeman, Brit. Med. Journ., Sep., 1878.
Uterus anteflexed, lying close to pubes on left side and jammed in the pelvis. This is considered to be result of former cellulitis	Strict observance of horizontal position. Uterus slowly rose out of pelvis, but a miscarriage occurred at seven months. This patient has since had two more children, the sixth pregnancy, attended at first with same symptoms, delivery at term. Seventh pregnancy normal	Graily Hewitt, 1879.
Uterus firm, large, anteverted slightly. Patient had been wearing a pessary, which prevents more than slight degree of anteversion	Sickness for a time modified by action of pessary, but becoming dangerous, dilatation of cervix was had recourse to in order to relieve the sickness, or, failing in that, as a first step in induction of abortion. Cervix dilated by metallic dilator, but with very great difficulty owing to great density of cervix. Following day relief of sickness, but abortion took place second day. Sickness relieved, but patient died a fortnight later from exhaustion	Graily Hewitt, 1879.
Uterus much retroflexed	Treated by lying in prone position. Cured. Delivery at term	Graily Hewitt, Dis. of Women, 4th ed., p. 368.
Uterus anteflexed	Tents had been recently employed to induce abortion. Patient had suffered from similar symptoms in other pregnancies. Result not known	Graily Hewitt, Dis. of Women, 4th ed., p. 368.
Body of uterus anteflexed, and jammed behind pubes very low down	Rest in bed for a week. Food frequently in small quantities. In a fortnight sickness only once a day. In a month free movement, no sickness. Delivery at term	Graily Hewitt, Dis. of Women, 4th ed., p. 369.
Uterus markedly anteverted, lies on posterior surface of pubic symphysis. Slight flexion of anterior uterine wall. Can only be redressed with very great difficulty, giving much pain	Attempts made for some days to improve position of uterus by tampons of sponge. Finally abortion occurred. Relief followed	Prof. Horwitz (Case 1), Zeitsch. f. Geb. and Gyn., 1883.

Name, &c.	Age.	Previous history.	Primipara or multipara	Period of observation.	Duration, &c., of vomiting.	State of os and cervix uteri.
XXII	24	Weakly, nervous	One abortion previously	Third month	Uncontrollable vomiting set in tenth week	Cervix rather hard directed backwards
XXIII	?	Suffered from dysmenorrhœa	Primipara	Three months	Vomiting soon became intense; some rigors, severe pain	Cervix far back to left, difficult to reach
XXIV	24	Had suffered much from gastrodynia, and latterly from sickness	„	—	Vomiting slight at first, became soon uncontrollable	Cervix much thickened and lengthened; directed backwards
XXV	29	—	Sixth pregnancy	Sev'nth or eighth month	Vomiting set in after quickening and soon became "pernicious," also diarrhœa	—
XXVI	30	Painful and profuse menstruation since last childbirth	Fifth pregnancy	—	Vomiting quickly assuming severe form soon set in, great emaciation; hypogastric severe pain, especially left side. Had been sustained three weeks by enemata	Cervix short, thick, soft, displaced backwards
XXVII	24	Menstruation early, scanty	—	Mid-pregnancy	Uncontrollable vomiting for five weeks	Cervix too long, conical, directed backwards
XXVIII	31	Had suffered from dysmenorrhœa. Treated for marked anteflexion and severe cervical endometritis. Following treatment became pregnant but aborted	Second pregnancy	In third month	Vomiting severe	Cervix much thickened, softish, markedly directed backwards; redness; some eversion of lips of os

Position and condition of the body of the uterus.	Treatment and results.	Authority.
Uterus very decidedly anteverted, appears larger than it should be, and especially wide at the fundus. Body of uterus softish. Uterus replaced with difficulty, giving patient much pain	Attempts made to alter position of uterus. Patient so ill that artificial abortion was suggested. It was not carried out. Patient died a few days after	Prof. Horwitz (Case 2), loc. cit.
Uterus as large as at four months. Perimetric exudation rather firm on left side. Uterus immoveable, very sensitive	Leeches, hot douche, mercury, nutritive enemata. After some days sickness less. Cure; delivery at term	Prof. Horwitz (Case 3), loc. cit.
Uterus much sunk down towards the front; marked bending of anterior surface. Redression very difficult	Apparently some attempts were made to elevate uterus. Artificial abortion induced. Result, diminution of sickness, but death in three days from exhaustion. Small cicatrices in stomach, with thickening and proliferation of tissues adjacent, also a constriction round stomach	Prof. Horwitz (Case 4), loc. cit.
Body of uterus to left, size of eight months	Labour set in spontaneously two days later. Child born alive. Death three days after of exhaustion and puerperal fever. Polypoid tumours size of walnuts in stomach. A number of polypoidal growths 2—3 inches long in large intestine	Prof. Horwitz (Case 5), loc. cit.
Whole uterus much enlarged, and in a state of ante and right lateral version. Fundus felt two fingers' breadth above pubes. Irregular tumour, sensitive to touch, felt left side to behind uterus	It was thought (erroneously) that extra-uterine pregnancy existed, but laparatomy was not considered advisable. Later on, however, laparatomy was performed by another practitioner, and gave rise to fatal hæmorrhage	Prof. Horwitz (Case 6), loc. cit.
Fundus 2½ fingers' breadth above pubes, very sensitive. Uterus soft, anteverted	Uterus reduced with much difficulty, giving great pain. Sponge tampons also used at intervals during two days (four attempts), no relief. Artificial abortion induced. Vomiting ceased during operation. Recovery. Two days after uterus found decidedly anteverted	Prof. Horwitz (Case 7), loc. cit.
Uterus larger than normal for the time of pregnancy. Uterus bent forwards and to right	It is not stated that any replacement was attempted. Sedatives, scarification of os, and caustic. Nutritive enemata. After two weeks much worse. Induction of artificial abortion. Patient recovered well	Prof. Horwitz (Case 8), loc. cit.

Name, &c.	Age.	Previous history.	Primipara or multipara	Period of observation.	Duration, &c., of vomiting.	State of os and cervix uteri.
XXIX	20	Menstruation normal	Primipara	Third month	Nausea set in early, severe vomiting quickly ensued; condition very serious	Cervix conical, rather hard, lies very low, only two fingers' breadth from ostium vagina, slightly directed backwards
XXX	36	Since last labour much leucorrhœa, pain, and dysmenorrhœa	Fifth pregnancy	„	Vomiting began at seven weeks, speedily became severe and serious; much emaciation and abdominal tenderness	Cervix thick, elongated, directed decidedly to left and back, so that it is reached with much difficulty
XXXI Mrs. D—	?	Suffered from dysuria and bearing-down pains some time	Multipara	Two months	Sickness incessant, ten days	Os very difficult to reach, considerably enlarged, congested, and tender
XXXII Mrs. K—	23	—	Primipara	„	Three weeks	—

Position and condition of the body of the uterus.	Treatment and results.	Authority.
Uterus in a state of very decided anteflexion. Fundus very sensitive	Correction of displacement gives great pain. Hot douches for two days. No better. Copeman's treatment attempted, and finger gradually inserted. Next day more dilatation. Effect on sickness trifling. Two days later death imminent. Artificial abortion. The vomiting occurred a few times only afterwards, then ceased. Attack of perimetritis four days later. Slow recovery	Prof. Horwitz (Case 9), loc. cit.
Fundus 2 fingers' breadth above pubes, more to right than left side. Uterine walls very soft, evidently old parenchymatous metritis, with marked anteversion	Attempt at reposition gives great pain. Sponge tampons, hot douches, nutritive enemata, horizontal position. Some days later worse. Copeman's dilatation of cervix tried; temporary success. Repeated next day, no good results. Artificial abortion induced. Voming ceased, but five hours later patient seized with severe cardiac constriction and breathlessness, and death speedily occurred. Death attributed to embolism of pulmonary artery	Prof. Horwitz (Case 10), loc. cit.
Fundus in state of anteflexion, felt as a rounded tumour size of turkey's egg	Efforts made unsuccessfully to replace uterus. Sickness worse. Five days later it was determined to raise the uterus and provoke abortion; catheter introduced after great difficulty 4 inches without stilette. Uterus then raised up. Abortion occurred following day. Recovery	Dr. J. Courtenay Haslett, Army Med. Dept., Brit. Med. Journ.,March 8, 1884.
Uterus anteflexed; fundus tender, enlarged, and firmly fixed at lower level than os	After ten days' useless ordinary treatment fundus pushed up by fingers with great difficulty, and giving much pain. Vomiting at once ceased. Cradle pessary inserted next day. Delivery at full term, living child. Similar but less severe symptoms in three next pregnancies, treated in like mechanical manner successfully	Mr. Robert Davis, Low Fell, Gateshead, Brit. Med. Journ., March 29, 1884.

Table I comprises particulars of thirty-two cases where the condition of the uterus, abnormal or otherwise, was noted. If we exclude Cases 1, 2, 3, where the *position* of the uterus was not noted, and Case 25, where the vomiting was probably due to disease of the intestines and in which the vomiting set in after the period of quickening, we have twenty-eight cases remaining in which sickness of an intense degree of severity was present during the first half of pregnancy. In the majority of these twenty-eight cases the vomiting was so severe that the question as to the necessity for artificial abortion arose. In twenty-three of these cases the uterus was in a state of decided anteversion or anteflexion, and in twelve of these twenty-three cases there was impaction of the anteflexed or anteverted uterus in the pelvis. In one case the uterus was anteverted but slightly and it had been more considerably anteflexed shortly before the pregnancy occurred. In four of the cases the uterus was retroverted. It thus appears that out of the twenty-eight cases in question the uterus was decidedly altered in shape and position in twenty-seven and in the one case remaining it was slightly anteverted, but presented other pathological conditions. With reference to the state of the os and cervix, the cervix was thickened and unduly hard in three of the thirty-two cases; it was much thickened in six cases, and too long in three cases. In two cases puriform concretions were found between uterus and decidua after death; in one the uterine wall was found post mortem very thin, soft, and gorged with blood. In most of Horwitz's cases, ten in number altogether, the uterus was found excessively sensitive to the touch and a condition present in four or five of these cases which Horwitz designates parenchymatous inflammation. The remarkable feature in this series of cases, thirty-two in number, is that in all the cases where attempts were made to raise the uterus from its displaced position, and where this attempt was successful, the vomiting ceased, whereas in the cases where the attempt failed the vomiting continued and the patient died,

the exceptions being those in which artificial abortion was induced and one in which abortion occurred naturally. In some of the cases no such attempts to reduce the malposition were made, artificial abortion being had recourse to as the primary procedure. In one case of anteversion, vomiting occurred after alteration of position and dilatation by Copeman's procedure, which gave relief, but abortion ensued. The results in these thirty-two cases may be tabulated as follows:

32 cases
- 1 Result not known.
- 11 Deaths.
  - 3 after induction of artificial abortion.
  - 7 cases in which no special treatment of the uterus was adopted, including 1 in which laparotomy was performed under mistaken diagnosis.
  - 1 disease of intestines.
- 20 Recoveries.
  - 6 after induction of artificial abortion.
  - 1 after natural abortion.
  - 7 after manipulative treatment and replacement of uterus.
  - 6 following positional treatment, rest, anti-inflammatory remedies, &c.

I propose in the next place to refer to cases which have been recorded in which the os and cervix uteri presented certain abnormal conditions and in which severe sickness was present. This series of cases stand in a rather different position to those which I have already described; and information respecting the condition of the *body* of the uterus is wanting in most of the cases. These cases I have arranged in a tabular form, and they include principally those in which dilatation of the os and cervix was had recourse to after the method recommended by Dr. Copeman in order to relieve the vomiting, and with a successful result.

Case 1 of this series is an interesting case related some years ago by Dr. Henry Bennet in which "ulceration" of the os was considered to be the cause of the vomiting. This case is similar to two or three others which might be quoted with less precise particulars. In Dr. Bennet's case the description given shows that the uterus was in a state of anteversion, although he speaks of the cervix as being much retroverted. This case might in fact have been placed in the previous series as one in which anteversion of the uterus was really present. The other cases are instances of Copeman's treatment. In one of these, by Dr. Gooch, of Eton, there is a curious history of relief of vomiting at eight months, resulting from dilatation of the cervix and escape of offensive discharge apparently pent up in the uterus. This is no doubt an extremely exceptional case.

Table II contains the principal facts of interest in these thirteen cases.

TABLE II.

TABLE II.—*Cases of severe vomiting in pregnancy in whic*

Name, &c.	Age.	Previous history.	Primipara or multipara	Period of observation.	Duration, &c., of vomiting.	State of os and cervix uteri.
I A. E—	29	Married early; three miscarriages; leucorrhœa, bearing-down; bad health	Fifth or sixth pregnancy	End of second month	Stomach rejects everything	Cervix voluminous, in durated, especially an terior lip; "cervi very much retroverted;" cervix attaine and exposed with difficulty, owing to e treme retroversion. Inferior lip and ci cumference of os present a fungou bleeding ulcerated surface
II	—	—	—	Six months pregnant	So reduced by vomiting that premature labour was to be induced	—
III	—	—	—	—	—	—
IV	—	—	—	Six weeks pregnant	—	Posterior lip hard an unyielding
V	—	—	—	Six weeks	Nearly incessant vomiting two weeks	—
VI	—	—	Multipara	Six months	Incessant vomiting	—
VII	—	—	—	—	—	—
VIII	33	Has had five children, five miscarriages; previous pregnancy relieved by induction of premature labour	Elev'nth pregnancy	Two months	Incessant vomiting	Tissues of os very har and cartilaginous
IX	—	—	Third pregnancy	Eight months	Incessant vomiting for two months	—
X	—	—	Second pregnancy	—	—	—
XI	—	—	Primipara	—	—	—
XII	—	Premature labour required in previous pregnancy	Multipara	—	—	Cervix, and especiall posterior lip, hard an gristly
XIII	22	—	Primipara	Third month	Sickness severe	—

normal conditions of the os and cervix uteri were specially noted.

tate of body of uterus.	Treatment and results.	Authority.
Uterus ightly enlarged	Patient proved to be pregnant. Caustics and other treatment employed. Uterus finally rose out of pelvis; induration at os disappearing. Delivery at term	Dr. Henry Bennet, Inflammation of Uterus, 4th edit., 1861, p. 175.
—	Cervix dilated with finger as preparatory step to induction of premature labour. An hour later this patient was so much better that no further steps were thought necessary. Sickness disappeared. Delivery at term	Dr. Copeman, Brit. Med. Journ., May 29, 1875. [This is the case which suggested the treatment now known as "Copeman's treatment."]
—	Dilatation of os with finger. Good result in relieving sickness	Dr. Copeman, Brit. Med. Journ., Nov., 1875.
ition of rus thought be normal	Os gradually dilated. After two days' rest, cure	Dr. Copeman, Brit. Med. Journ., May, 1879.
—	After dilatation of os by finger as far as os internum vomiting ceased	Dr. Copeman, Brit. Med. Journ., June, 1879.
—	Vomiting ceased after digital dilatation of the os uteri	Mr. Atkinson, Halifax, Brit. Med. Journ., Nov., 1875.
—	A sponge tent introduced into the cervix allayed the vomiting	Dr. Minot, Boston, Brit. Med. Journ., Sep., 1876
—	Os dilated digitally. Vomiting at once relieved, and soon ceased	Dr. Dukes, Brit. Med., Journ., Feb. 23, 1878.
—	Dilatation by finger, and separation of membranes round os. Escape of much offensive discharge. Relief of vomiting. Delivery at full term	Dr. Gooch, of Eton, Brit. Med. Journ., Sep. 28, 1878.
—	Cure by digital dilatation of os	Dr. Rosenthal, Brit. Med. Journ., Aug., 1879.
—	Cure by digital dilatation of os	Dr. Rosenthal (2nd case), Brit. Med. Journ., Aug., 1879.
—	Neither finger nor tent could be introduced into cervix. A long and slightly curved throat forceps was used, and gently but with some force the os was thus dilated. Effect immediate in relieving the vomiting	Mr. J. T. Fry, Swansea, Brit. Med. Journ., March, 1880.
—	On four occasions, at intervals of a day or two, finger introduced into softened cervix as far as internal os. After a week sickness ceased	Dr. Murillo, of Santiago, Lond. Med. Record, Feb., 1878.

Certain conclusions appear to be inevitable from a careful review of the pathological and clinical evidence in regard to the cause of the severe vomiting of pregnancy which has now been set before the Society.

1. One conclusion is that the cases in which the disease is due to some disorder of some other organ than the uterus are so very few in number that they may be almost excluded from consideration. Thus in only one case out of the thirty-two detailed in Table I could the sickness be considered as having an origin other than the uterus.

2. Another conclusion is that in the large majority of cases the disease is one which presents itself during the first half of pregnancy, and consequently that attention must be principally directed to cases of the typical degree of severity such as is then witnessed in any attempt to ascertain its real nature.

3. The evidence as to the nature of the alteration in the uterus which produces this dangerous affection appears conclusively to point to interference with the normal expansion and growth of the uterus. If we take the series of cases, thirty-two in number, where the condition of the uterus as a whole was recorded we find that this is most frequently brought about by or in connection with detention of the bulk of the uterus in the bony pelvis. These cases show that the large majority of cases are those in which the body of the uterus is incarcerated in the pelvis with the organ in a state of anteflexion or anteversion, but that in a few the incarceration in the pelvis is due to retroflexion or retroversion. Taking the thirty-two cases above mentioned, 88 per cent. were cases of the former kind and 12 per cent. only of the latter form. The state of the uterine tissues I shall allude to again presently.

If we turn to the cases recorded in the other table (Table II), where unfortunately evidence is only given as to the state of the os and cervix uteri and no mention is made as to presence or absence of displacement of the body of the uterus, we find particular mention of hardness,

resistance, unusual rigidity of the os and tissues of the cervix, and this abnormal condition extending to the internal os uteri. Putting the two tables together it may be said that we find in both tables mention made of undue hardening and resistance of the cervix, and we find mention also made in the first table of such hardenings of the cervix along with marked displacement. Respecting the cases in Table II we cannot say whether there was or was not displacement also.

4. There appear then to be two factors to be considered, both of them capable of interfering with expansion of the uterus: (A) Incarceration of the organ in the pelvis associated with flexion or version. (B) Undue hardness and rigidity of the tissues of the cervix and of the tissues around the os uteri internum.

It is evident that in a given case these two factors, distortion of shape and rigidity of tissue, may co-operate to produce the result observed, viz. the distressing sickness. It is further necessary to point out that in conjunction with incarceration and a rigid flexed state of the uterus there is liable to arise a swollen, congested condition of the structures immediately surrounding the uterus, which tends to perpetuate the incarceration at the same time that it interferes with the normal stretching and expansion of the uterine walls.

Which of these two factors is the more important?

The evidence given by results of cases in Table I is that reposition of the uterus arrests the vomiting. The evidence of the cases in Table II is to the effect that dilatation of the cervix and internal os uteri may produce the same effect.

There are cases in both series which demonstrate the importance of each one of the two factors, distortion and rigidity. One marked case, for instance, was unrelieved although the uterus was in fairly good position until the extremely rigid cervix had been dilated. On the other hand, in one of Horwitz's cases the dilatation plan failed, the uterus being still incarcerated. As regards the re-

spective value to be assigned to each factor a quite justifiable criticism of the dilatation series of cases in Table II would be to say that very probably many of them were really cases of displacement in which the manipulation required to effect dilatation of the cervix had the accidental effect of liberating an incarcerated uterus. In a case of anteflexed incarcerated uterus, for instance, in order to introduce the finger and dilate the cervix, it would be necessary to draw the cervix downwards and forwards, and this would obviously tend so to rotate the uterus on its transverse axis that the fundus would rise or might be made to rise above the pubic symphysis and so escape from its incarcerated position.

There can be no doubt as to the fact of the importance, however, of the rigidity considered *per se*, but there appears to be reason for concluding that rigidity alone would occasion serious symptoms but rarely if not for the fact that it is very liable to be associated with distortion, and in cases of impaction the two conditions are as a matter of fact associated. Speaking of rigidity in this sense it must be understood as applying to the cervix, for it appears that the walls of the body of the uterus are not seldom in a soft condition.

The point which seems important to clear up is the early history of the development of the gravid uterus in cases of severe sickness. It is plain enough that in these cases the condition of the uterus is at fault very early in the case, and before the sickness sets in with severity. In order to understand the matter exactly it is necessary to appreciate the condition of the uterus when the pregnancy actually begins. It is certain that we have no sudden or abrupt occurrence to deal with. These are not cases in which the uterus, for instance, suddenly, in consequence of a blow or a fall, becomes at once displaced and impacted. Possibly in some cases undue exertion during the first two months of pregnancy may intensify an existing displacement, but there are no facts to warrant belief in a sudden descent and impaction of the body of

the uterus in the cases of severe sickness. The facts point to existence of an embarrassment in the expansion of the uterus from the first commencement of pregnancy. A difficulty such as this is what might be expected to occur when the uterus is already distorted from flexion when pregnancy begins, the flexion being associated with an indurated condition of the tissues of the cervix due to previous congestive hypertrophy of the cervix, or as it would be termed by some authorities, chronic inflammation and consequent induration or hyperplasia of this part of the uterus. The effect of the presence of this indurative alteration of the cervix is to restrain the natural expansion which should occur, to hinder the unfolding of the organ, and to prevent in some cases the rising of the fundus out of the pelvis.

The previous history of these cases of severe vomiting in pregnancy, where this previous history is known, abundantly favours the view that the uterus was affected in the manner above described prior to the pregnancy. This statement is borne out on reference to the cases detailed in Table I, where a short epitome is given as to the previous symptoms. Where these previous symptoms have been recorded they are such as indicate an abnormal state of the uterus prior to the pregnancy.

It is comparatively easy to explain the occurrence of impaction of the gravid uterus in the pelvis in cases where the uterus is previously flexed and the cervix already indurated and otherwise altered, and such is, I believe, the explanation of the matter. Horwitz, discussing the pathology of these cases, remarks : "The condition of the uterus can only be explained by presence of parenchymatous inflammation of the uterine walls." . . . . "The question how and when the parenchymatous inflammatory condition arises is very difficult to answer. Probably it commences before the commencement of pregnancy, for we can scarcely believe that in so short a time the inflammatory action could produce such marked effects." These remarks of Horwitz are confirmatory of

the view above taken, but, remarkably enough, Horwitz explains the displacement of the uterus as being due to the inflammatory condition, whereas the very opposite appears to be the truth. In fact, as I have already mentioned, Horwitz offers very contradictory statements as to the value to be attached to the displacement factor; in one place he denies its value, and in another expresses an opinion which is virtually the very opposite.

As regards the state of the uterus during the very early part of the pregnancy it is probable that the uterus is flexed and congested as well as indurated so far as the cervix is concerned. As the pregnancy advances congestion is increased and the natural increase which pregnancy produces in the thickness of the parts around the cervix adds to the effect of this congestion, the result being considerable tumefaction of the uterus and engorgement of the plexus of vessels around the uterus. And if the organ does not become unfolded the compression of the tissues around the internal os uteri becomes more and more considerable. Thence arise the phenomena observed as attendant on impaction in the typical cases where vomiting is present to an extreme degree of severity. The extreme pain, the great tenderness, and the considerable swelling of the uterus are effects which might be expected to follow under these circumstances.

We may here discuss with advantage the question as to inflammation of the os and cervix as a cause of the severe sickness of pregnancy. Dr. Henry Bennet, writing on the subject 1862,* says: "The existence of inflammation of the cervix will indeed, I firmly believe, be found to be the key to those cases of obstinate sickness which occasionally defy all medicinal aid, reduce the patient to the brink of the grave, and sometimes even render it necessary to bring on abortion in order to save the life of the mother." In Horwitz's essay prominence is also given to an inflammatory condition of the tissues of the uterus. Dr. Bennet gives a case as confirmatory of his view which I have

* 4th edition, p. 172.

placed in Table II. In this instance, however, it is plain from the description given that the case was one of extreme anteversion, the os and cervix being much congested and thickened. The sickness became relieved after a while, when the uterus rose up out of the pelvis, and no doubt the treatment was instrumental in relieving the patient. It may fairly be supposed that in this case the manipulation involved helped the uterus to rise out of the pelvis as well as to diminish the inflammation of the os uteri.

There is no reason to doubt that chronic congestion, or, as Dr. Bennet would term it, chronic inflammation of the os and cervix, are likely to be observed both as antecedent and as concomitant conditions in cases of severe sickness. My view of the matter is that the induration which delays and prevents unfolding of the upper part of the cervix in such cases is due to previous chronic congestion, as I have already remarked. It is obvious that pregnancy may find the uterus unsound in a variety of ways. If there be indurative enlargement of the cervix, or if there be decided curvature of the cervix together with induration there will be interference with expansion. It is infinitely more probable, I believe, that interference with expansion will occur when the cervix is curved—in other words when there is flexion—than in simple cases of induration without curvature.

It is an open question whether the sickness is actually due to the abnormal stretching of the uterine wall which is undoubtedly present in the *upper part of the uterus* when the surface is free, or to abnormal compression of those parts of the uterus which surround the seat of the flexion. On that point there may be a difference of opinion. My own idea is that the consolidation and compression of the uterine walls around the internal os is the excitor of the reflex sickness. In both cases nerves might be subjected to tension.

The observations of Dr. Copeman, and the relief of the vomiting by dilatation of the cervix and os internum,

would seem to favour the view that the irritation which causes the vomiting is the hardening and consequent compression of nervous filaments in the tissues at the part most affected by a bending of the uterus, viz. the upper part of the cervical canal, rather than the nervous filaments at other parts of the uterus.

An objection which has been frequently made to the theory that the vomiting of pregnancy is connected with change of shape (flexion) or position of the uterus, is that changes of shape and position of the uterus are frequently met with in cases where there is no vomiting. This is one of the principal objections urged by Professor Horwitz; this objection requires to be considered. In the first place it is to be remarked that in the non-gravid state flexions are sometimes found to give rise to sickness, and sometimes there is no sickness. In the majority of cases of acute flexion (non-gravid cases) this is a noticeable symptom, and I have known cases, and have published particulars of cases, in which death appeared to be imminent from the long-continued and severe vomiting produced by the flexion, and proved to be due to it, inasmuch as the symptom disappeared on restoring the uterus to its proper shape. In many cases, on the other hand, no such sickness is observed. The vomiting is a reflex act, and a certain irritation in the uterus sometimes does and sometimes does not excite this reflex action of the stomach. The same holds good with reference to other reflex acts with which we are familiar. A given irritation is not always followed by a reflex disturbance, although the known facts warrant the conclusion that there does exist a connection of cause and effect in the cases in question.

From what I have seen of the behaviour of the flexed uterus in the non-gravid uterus in regard to its capability for producing reflex vomiting it appears that the flexion of the uterus forwards is more frequently attended with vomiting than the corresponding displacement backwards. Retroflexion of the non-gravid uterus is not so frequently productive of severe sickness as is the case with ante-

flexion, first because the backward flexion is numerically less common than the anterior flexion, but probably also because for some reason or other retroflexion is not so provocative of sickness as anteflexion.

It is not a little curious that there is, so far as recorded cases enable us to form a conclusion, the same difference in the liability to produce sickness in the gravid uterus, for the number of recorded cases in which the retroflexed gravid uterus was associated with severe vomiting is very much smaller than the number of recorded cases of anteflexion or anteversion associated with severe vomiting. It can be proved by reference to many cases that retroflexion of the non-gravid uterus may exist to a severe degree without sickness, while in several well-observed cases the patient was brought to death's door by its presence. Applying the argument of analogy, therefore, it should not surprise us that the retroflexed gravid uterus may or may not excite serious vomiting, and the absence of the vomiting in one case is no argument for its non-dependence on the displacement in another.

I submit the following consideration as explanatory of the fact that backward displacements when accompanied by gravidity are not so frequently productive of severe sickness as when there is a displacement forwards *plus* gravidity. In the case of a retroverted or retroflexed uterus, as the body of the uterus enlarges from pregnancy, the cervix is tolerably free to move upwards to the top of the symphysis pubis, while the concavity of the sacrum affords ample room at first for the expanding uterus. Thus there is a chance of the flexion becoming lessened, supposing such to exist, while in cases where the organ is simply retroverted the increase in size is not attended at first or not at all with compression at the junction of the body and cervix. Later on, of course, impaction occurs, and then other symptoms, which are well known and which I need not particularise, are observed. On the other hand, in cases of anteflexion *plus* gravidity, if the uterus does not rise up out of the pelvis the intensifi-

cation of an existing flexion occurs almost of necessity, and consequent compression at the junction of the cervix and body of the uterus results. In other words, the pelvis is not so adapted for allowing the uterus to expand within the cavity, and thus get rid, so to speak, of the flexion in cases of anteflexion as in cases of retroflexion. If the fundus succeeds in rising out of the pelvis other conditions are present. But we are now concerned with what is likely to happen when such ascent does not occur at the proper time and in the proper manner. And it cannot be denied that when incarceration exists, with an anteflexed gravid uterus, the flexion will become intensified as the pregnancy advances.

Here I would direct attention to a most important paper "On the Effects of Ante-Displacements of the Uterus on Pregnancy and Labour," by Dr. E. C. Gehrung, of St. Louis,* which contains an admirable account of facts observed by himself and which agree completely with what I have myself noticed. Gehrung says, in cases of anteflexion after conception, "the neck of the uterus is pulled back and upward, while the body is thrown forwards and downwards so much so as to present the fundus and frequently a greater or less part of the posterior surface of the corpus towards the pubic symphysis." . . . "As the space of the small pelvis is filled the growth ceases to be general, and in the absence of the inclined planes of the anterior walls of the uterus and abdomen the fundus cannot be pushed up foremost to the epigastrium. On the contrary as friction increases by the growth of the uterus the fundus will become more firmly fixed at least for a shorter or longer time in its abnormal position near the pubes, and some point of the posterior wall is pushed upwards and made to act as a pseudo-fundus . . . The anterior wall assists comparatively little in the longitudinal development. . . . In some of these cases almost complete restitution by the unaided efforts of nature takes place, while in others there

* 'American Journ. of Obst.,' July, 1882, p. 690.

will be little or no replacement." To this abnormal evolution Gehrung ascribes the persistence of the malposition or contortion during the whole pregnancy, the return of the old displacement after involution, &c. He considers it often the cause of miscarriage owing to the great resistance to early development and the increase of the flexion during the early months. In regard to its influence on the production of vomiting Gehrung says "its occasional relation to the causation of vomiting and other complications of pregnancy can certainly not be denied if observation entitles one to draw conclusions."

To illustrate his ideas on the subject of the development of the gravid anteflexed uterus Gehrung gives two diagrams contrasting the development of the healthy with that of the anteflexed uterus during pregnancy.

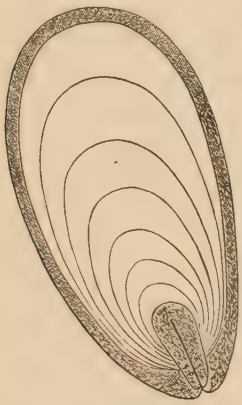


FIG 1.—Development of normal uterus.

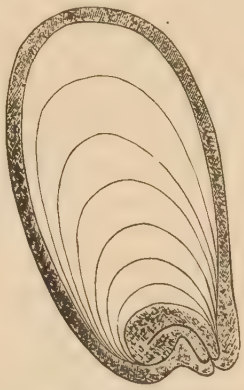


FIG 2.—Probable mode of development of anteflexed gravid uterus.

As supplementary to the consideration of the possible causes of undue stretching and tension of the uterine fibre must be mentioned a series of causes pointed out by Dr. Barnes. This author states that some of the most severe cases he has met with of severe vomiting in pregnancy were cases of hydatidiform degeneration of the placenta, which probably, he says, acted partly at least by

distending the uterine fibre. Other causes of a somewhat analogous nature are mentioned by Dr. Barnes, viz. presence of an excessive quantity of liquor amnii, a dead fœtus in utero, and, as recorded by Dr. McClintock, presence of an intra-uterine polypus.

A Few Words respecting Severe Vomiting late in Pregnancy.

The typical cases of severe vomiting occur during the first half of pregnancy, but there are a few in which the vomiting is observed later than this, and in which the uterus is to be regarded as the cause. Dr. Barnes mentions undue distension by excessive quantity of liquor amnii as a cause of severe sickness, also presence of polypus complicating the pregnancy. Dr. Clay records a case where severe sickness was observed at the seventh month. He found the uterine cervix so sensitive that the slightest touch produced vomiting. He had resolved to induce labour, but finding this to be the case he first tried rest. The patient was thus cured and went her full time. This was probably a case in which there had been induration around the os internum, not sufficient, however, to give rise to very severe vomiting, and essentially resembles the cases more recently related by Dr. Copeman. Dr. Lee related a case where bronchitis and fever had occurred before the vomiting set in. In these and perhaps some other cases that might be mentioned the general weakness of the patient occasioned an extreme degree of irritability of the uterine nerves, and probably there was sufficient resistance in the structures round the internal os to give rise to the vomiting as the uterus progressively enlarged.

And it is on the whole extremely probable that in the majority of cases where the vomiting sets in late in the pregnancy it does so because of rigidity of the lower segment of the uterus, and that these are cases in which

the rigidity present around the internal os is less in degree than in the cases where the vomiting sets in at an earlier period. Also, in cases where the vomiting, having set in early, continues more or less severe during the latter half of gestation, it is to be concluded that some rigidity remains spite of the elevation of the uterus above the pelvic brim.

Treatment.

It is evident from recorded facts that the severe sickness of pregnancy has in the vast majority of cases a natural tendency to cure. There are, for instance, several cases on record in which the patient's condition was so critical that artificial abortion was contemplated, when suddenly an improvement was noted and it became unnecessary. In these instances the facts related leave no doubt that the change in the symptoms arose from an incarcerated uterus having escaped from its confined position in the pelvis.

Concerning the majority of cases it follows as a corollary that the first indication in the treatment is to secure the normal upward movement of the fundus uteri, to relieve the incarceration when present, if that be possible, and to prevent its occurrence by a properly arranged method of treatment in all cases where vomiting is present to a troublesome degree.

A careful investigation of the condition of the uterus would be the first step to be taken. In the next place a proper system of *rest* should be enforced. In the majority of cases the uterus would be found anteverted or anteflexed, and in such cases the patient should lie on the back. But if by chance the uterus were retroverted this position would be quite unsuitable, for obvious reasons. The rest must be absolute and the abdominal muscles perfectly relaxed. In cases of retroflexion the prone position or semi-prone position would be best, together with occasional use of the knee-elbow position.

These directions apply to cases where severe sickness in its first stage is observed, and such treatment would probably prove quite adequate.

Failing to obtain relief, or supposing the uterus to have become fixed and difficult to move by gentle pressure of the fingers, other measures would or might be required.

In cases of anteflexion, pressure with the fingers might be used, as in the case related by Mr. Davis (Case xxxii), and after reposition of the uterus the hips should be raised and a cradle pessary inserted to be worn for two or three weeks. As alternative to this plan, and in cases where there is more fixation of the uterus, a perfectly round air-ball pessary may be inserted in the vagina. It may be worn for twelve hours at a time, the size carefully regulated to the exigencies of the case. From what I have observed this means is the best for raising an *impacted* anteverted gravid uterus out of the pelvis. If the fingers be employed the pressure must be gradual and deliberate. A cradle pessary with a rather thick rounded saddle-shaped upper part is very suitable for maintaining the ground obtained by previously applied pressure. The pessary is not required after the end of the fourth month. In the severe cases of impaction absolute rest is essential until the uterus has been some time in proper position.

In cases of retroflexion a rather thickly covered Hodge-shaped pessary is required. The instrument must be accurately selected as regards size, and rest enforced. The pessary to be removed at about mid-pregnancy.

It is probable that all will agree that the foregoing rules for treatment are at all events worthy of trial before other measures are resorted to. I have only seen one case where the plan of reposition aided by rest and positional treatment failed to relieve.

The next procedure which should be tried, supposing the foregoing to fail, is the dilatation of the cervix after Copeman's plan. I have already discussed the *modus operandi* of this treatment, which is probably in many cases beneficial because it helps to reduce an impacted uterus.

The cervix requires to be dilated through its whole extent apparently. In many cases this can be effected by means of the finger, but when there is a narrow cervical canal and much hypertrophy a tent or a metallic dilator is required. A dilator acting like a glove stretcher answers well, but when there is great rigidity a sponge tent is probably superior to it, care being taken to avoid septic action.

Lastly comes the operation of induction of abortion. It is to be hoped that the necessity for such an operation will become less and less evident as knowledge of the etiology of these cases of severe vomiting advances. Difficult as it may be to reduce an impacted uterus when the impaction has existed some time, and when the patient is at death's door from exhaustion, there appears to be every reason for believing that these very cases would have admitted of a successful and easy treatment if they had been recognised and dealt with as cases of displacement at the earlier part of the pregnancy, and soon after the vomiting had set in. It is probable, however, that cases will now and then occur in which, for one reason or another, the opportunity for early treatment has passed over, and the weakness is so extreme that it may seem better to induce abortion than to subject the patient to continuous forcible manipulative treatment with the idea of replacing the uterus, and where Copeman's treatment has failed or is not thought advisable. In such cases artificial abortion may have to be induced. This operation is not without its dangers, however, as the cases related show. It is undoubtedly much safer the earlier it is undertaken. But then in what we call early cases other treatment will probably succeed. The best method of inducing abortion in such cases is a matter open to discussion. Horwitz prefers dilatation of the cervix by tents to attempting, as a first procedure, to puncture the membranes.

The PRESIDENT was certain he was but expressing the general feeling of the Fellows present in offering to Dr. Hewitt their

best thanks for his able, interesting, and important paper. He would venture to suggest that in the discussion it would be well for Fellows to confine their remarks pretty closely to the points especially dealt with by Dr. Hewitt,—the cases where severe sickness was associated with some uterine distortion or pathological hyperæmia. It would be interesting also if any Fellows could give particulars of the pregnancy in cases where to their knowledge anteflexion of the uterus preceded conception. He would also express their thanks to Dr. Hewitt for providing the printed tables of cases which were in the hands of the Fellows.

Dr. Champneys said that the paper suggested so many criticisms that the short time remaining would only allow him to briefly mention some of them. And first he would say that Dr. Hewitt had in his paper alluded to several objections to his theory, and replied to them by anticipation by arguments that seemed to amount to a declaration that in spite of all objections he believed his own theory. This, however, was hardly enough for others. The latest and most trustworthy investigations tell us that anteversion and anteflexion (always known to be the common condition in early pregnancy) is found in no less than 80 per cent. of cases of early pregnancy. No attempt has been made to show the comparative frequency of vomiting in those whose uteri are "displaced" and the small minority in which they are not displaced. It is also well known that in lying-in women the uterus is commonly anteverted and anteflexed. Judging from experience at the General Lying-in Hospital—where all patients are carefully examined before dismissal, accurate notes of the position and shape of the uterus being kept—he should say that at least as large a number (80 per cent.) had anteversion or anteflexion. Here is the case of a large uterus, full of blood, anteflexed—just the conditions which would seem likely to furnish a crucial test. But where is the vomiting? Again, it has been assumed that flexion is necessarily a position of constraint. Here are these lying-in women, lying on their backs, and the uterus persistently anteflexed. Moreover the hypothesis that flexion—as flexion—ever disturbs the circulation in the uterus has never been proved by experiment and seems to be a pure assumption. If, however, we look for a typical condition of flexion with pressure, we find it in the case of the retroverted gravid uterus. Here we have acute flexion with incarceration, either of which on Dr. Hewitt's theory is sufficient to cause vomiting. But where is the vomiting? It is well known that it is in no sense a symptom of the condition. It is now well ascertained that flexions occur with extreme frequency in women, whether well or ill; indeed, their frequency is such that they are certainly associated with innumerable conditions. Mere association without severe sifting shows absolutely nothing. The sudden

cessation of vomiting, recorded in some cases related in the paper, is a well-known occurrence in this variety of vomiting, and is a precarious foundation for theories. Lastly, the cases in the paper are destitute of the details necessary for us to form a judgment. We should like to hear a great deal more about albuminuria, jaundice, constipation, their presence or their absence, their amount. In the absence of such details it is impossible to accept any such theory as that now before us.

Dr. GALABIN thought that the cases collected by Dr. Hewitt were of interest as affording some evidence on the causation of excessive vomiting, and that the point now especially to be regarded was the therapeutic test, namely, the effect of remedies. He did not consider it sufficient to show that certain conditions were frequently associated with excessive vomiting, unless it was shown also that the removal of those conditions cured the vomiting. This applied especially to anteflexion of the uterus, which was so extremely common in early pregnancy that he was accustomed to teach that, coupled with some enlargement of the fundus, it was one of the most valuable diagnostic signs of that condition in its earliest stage. If anteflexion or anteversion of the uterus were the most important causes of excessive vomiting, it might be expected that the introduction of an anteflexion or anteversion pessary would cure the vomiting. Postural treatment was not a test, for this would act in other ways as well. Now, of all the cases in the list circulated, it seemed that not one had been cured or relieved by this means. In one a pessary was introduced, but the vomiting had been relieved previously. In two only a cure without the use of other means followed the pushing up of the fundus displaced forward, a measure which he hardly thought likely to have any permanent effect. He thought this proportion not sufficient to be any evidence that anteversion or anteflexion was a cause of importance. In backward displacements relief seemed to have followed reposition in a much greater proportion of the cases. In considering causation it must be borne in mind that excessive vomiting was only an extreme degree of the common vomiting of pregnancy. It would then be clear that the tension caused by the growing ovum must be an important element in causation. For if the ovum dies, not only the other signs but the vomiting of pregnancy generally subsided. Excessive vomiting caused by rapid distension with hydatidiform mole supported the same conclusion. It was then intelligible that, with a hyperæsthetic nervous system, especially when there was in addition some morbid condition of the uterus rendering the nerves over-sensitive, excessive vomiting might be produced. Such morbid condition might be inflammation, induration, or the effect of grave displacement; and as regards displacement he was much more inclined to regard retroversion, especially with incar-

ceration, as an important cause in some cases than anteversion. Considering, further, the therapeutic test, he thought that the benefit often derived from dilatation of the cervix was not sufficiently explained by the author's theory. He had several times observed this benefit, complete in some cases after the use of a tent, before the onset of any pains, in others partial after the passing a dilating bougie just through the internal os. It was difficult to understand fully the *modus operandi* of Dr. Copeman's method. But if the continuous tension affected particularly the margin of the internal os, a special seat of reflex action in labour, it might be that this source of irritation was done away with by over-stretching the nerves, or rupturing some fibres. He could not understand that the uterus could ever be incarcerated in the anteflexion or anteversion of early pregnancy. There was no resisting point like the angle of the sacrum to prevent its elevation. Apart from the effect of adhesions or tumours he had never met with a case in which the fundus offered a resistance to pushing up at all comparable with that encountered in cases of retroversion with incarceration.

It was proposed by Dr. Barnes, seconded by Dr. Braxton Hicks, and carried, that the discussion be adjourned till the next meeting.

DECEMBER 3rd, 1884.

Henry Gervis, M.D., President, in the Chair.

Present—67 Fellows and 10 visitors.

Books were presented by the Royal Medical and Chirurgical Society, the Obstetrical Society of Edinburgh, and the Editors of 'Guy's Hospital Reports.' Some original drawings by the late Dr. Westmacott were presented by his representatives.

R. W. Sutton Barraclough, M.D., was admitted a Fellow of the Society; and Walter Greene, L.R.C.P. Lond. (Wallingford); George Knapton, L.R.C.P. Ed. (Southampton); J. Murray Smith, M.B. (Romford); and James Troutbeck, M.B. (Bushey Heath), were declared admitted.

The following gentlemen were elected Fellows:—Thomas Rutherford Adams, M.D. (Croydon); Charles John Gibb, M.D. (Newcastle-on-Tyne); Frederick William Gibbon, L.S.A. (South Shields); William Gowans, F.R.C.S. Ed. (South Shields); Charles Henry Hough, M.R.C.S. (Derby); Robert Nichols Ingle, M.D. (Cambridge); John Arthur Irwin, M.A. Cantab., M.D. (New York); John James Powell, L.R.C.P. Lond. (Weybridge); Richard Francis Starkie, M.D.; Percival Humble Watson, L.R.C.P. Lond. (Newcastle-on-Tyne); and Ernest Wedmore, M.B. Cantab. (Bristol).

The following gentlemen were proposed for election:—

William Henry Bourke, L.K.Q.C.P.I.; Lovell Drage, M.R.C.S. Eng. (Hatfield); P. Sydney Jones, M.D. (Sydney); and Arthur H. N. Lewers, M.B.

FIBRO-MYOMA OF UTERUS.

Dr. Walter (Manchester) showed a fibro-myoma of the uterus weighing over sixteen pounds, which he had removed by abdominal section from an unmarried woman aged 40. The tumour was three years in growing, and had never caused menorrhagia, the catamenia being on the contrary scanty, and for the six months preceding the operation completely absent. During these six months the size of the tumour rapidly increased and the patient suffered so much pain and inconvenience she was obliged to give up her employment as cook, which was her only means of support. The tumour sprung by a short pedicle from the fundus uteri, and was extremely adherent to the abdominal parietes. The pedicle was secured by Lawson Tait's clamp, which answered very satisfactorily.

The patient's convalescence was protracted through the formation of an abscess in the abdominal wall necessitating the reopening of the wound after it had become cicatrised.

DICEPHALOUS FŒTUS.

Dr. Horrocks exhibited a specimen obtained from the Lying-in Charity in connection with Guy's Hospital. The mother was a multipara and first cousin to her husband.

The presentation was breech, and nothing abnormal was found out until the child was born as far as the shoulders. When the cord was felt there was no pulsa-

tion in it. Two necks and two chins were now made out. The left head was anterior and lower than the right, both faces looking towards the mother's right. The pains were strong and presently the right head descended below the sacral promontory, got lower than the left head and swept over the perinæum, and was born first with the occiput posterior and to the left. The left head was born last. The child was quite dead. No instrumental aid was given, but traction was made on the legs. There were two well-shaped heads and necks on an apparently single trunk; but two spinal columns could be distinctly felt along the back right down to the lower end, the coccyx of each being distinct. There was apparently only one sternum, but it was very wide at the top. The whole chest was very wide. There were three scapulæ, right, left, and middle. The acromion process of the middle one projected between the necks, forming a prominence which was felt before birth. The sex was female. The cord and placenta were single.

Dr. Playfair said that Dr. Horrocks's specimen was a very interesting example of one of the rarer forms of double monstrosities, of which he had made a special class in his paper "On the Mechanism and Management of Delivery in Cases of Double Monstrosities" under the head of the "Dicephalous Monsters." As a rule the labour was easy, or comparatively easy, for in a large majority of the cases the fœtus presented by the breech. One head was then engaged *per se;* and the other followed without trouble. This was what seems to have occurred in the present case. The curious point, therefore, was that so few of these seemed to be born alive. Almost all the living examples of conjoined twins belonged to the class in which the bodies were more or less fused, as, for example, the Siamese twins, the Hungarian twins, and Millie and Christine. This was the more strange as in many of these the labours were very complex and difficult. There was no apparent reason why a dicephalous fœtus such as Dr. Horrocks exhibited should not survive, and it would form a true two-headed monster, similar to the giants of our fairy tales. One was exhibited at the Society a few years ago that would certainly have lived had the labour been skilfully managed. The only example he knew of survival was the apparently authentic case described by Lindsay of Pitscollie. This monster lived to between thirty and forty years of age.

He was employed by James V of Scotland as hall porter. He is described as "ane man of uncommon parts," one of whose heads spoke several languages, and the other several entirely different ones.

LARGE FIBROUS POLYPUS.

Dr. Godson showed a large fibrous polypus which after being separated by the wire écraseur from its attachment to the uterus could not be extracted whole from the vagina, being found too large even when crushed to the fullest extent by the cephalotribe. Subsequently, a deep groove was cut in its posterior surface, half way up, in which the wire of the écraseur was inserted, and it was cut in half, the portions being easily removed. This seemed to be the best plan in cases of difficulty in extraction.

Dr. Herman had recently had under care a case of uterine polypus as large as that shown by Dr. Godson, in which the tumour was extensively adherent to the vagina; and this, with the great size of the tumour, which prevented the finger from reaching the os uteri until the patient had been anæsthetised, made diagnosis difficult. In this case, after liberating the tumour by cutting and tearing through the vaginal adhesions, and cutting through the pedicle, the tumour was too big to come through the vaginal orifice entire, and it was removed by cutting it into pieces while in the vagina.

Dr. Walter, in remarking upon Dr. Godson's specimen of uterine polypus, stated that he had on several occasions experienced difficulty in extracting large uterine polypi from the vagina after their pedicles had been divided, and strongly recommended in such cases the application of Aveling's short sigmoid midwifery forceps, the curve of which enabled the tumour to be delivered by means of axis traction.

Dr. Barnes reminded the Society that he had exhibited a large tumour presenting similar difficulty in which an axis-traction Vulsellum forceps he had constructed with Aveling's curve had rendered efficient service.

Dr. Horrocks said that some months ago he had removed a very large polypus which grew from the cervix uteri and distended the vagina. After cutting through the pedicle with a

wire écraseur he tried to deliver by tenacula, forceps, &c., but failed. Finally he succeeded by cutting the tumour in half with scissors, rotating the tumour from above downwards continually until the centre of the mass was reached. Each half was then removed easily.

Dr. Routh stated it would be well if some plan could be devised for removing large polypi, especially if very hard and in virgins, when they could not be removed by an écraseur in the usual way. The case cited had been one of great difficulty. But he had met a case, and in a virgin, where an enormous polypus had been expelled into the vaginal cavity. Originally entirely within the uterus, by means of ergot, &c., it had been forced down entire. He had desired the subject of this tumour to let him know the moment it came down, as she lived in the country. She did not do so till it had been down in the vagina for a week, when it was in a state of putridity, and a most fœtid cadaverous discharge was proceeding out of the vagina. The tumour was perfectly round and filling up the entire vagina and pelvis, fibroid and extremely hard. Injections of an antiseptic character round the tumour were used, and she came up to town in a very weak state, but with septicæmic poisoning. It was with the greatest difficulty that the wire of the écraseur could be pushed round any part of the polypus and the tumour surrounded, the cavity of the vagina was so tightly fitted by it. Twice the wire broke, and all had to be begun again. At last it was fixed and half the tumour removed. But at this stage the patient fell back and died. Ether had been given. A cephalotribe could not by any means in this case have been used, nor yet the knife, or forceps, so tightly was the tumour grasped by the vagina, the pudendal extremity of which was very small, and adding greatly to the difficulty of pushing up the wire. What in such a case would have been a better course to pursue? Something had to be done, for an operation was the only course to be adopted which could reasonably be hoped to save life.

The President, in reply to Dr. Routh's question, would like to say that in similar cases of large fibroid polypi, where from their size there had been great difficulty in withdrawing them after division of the pedicle, he had never failed in accomplishing it by making sections through them with Weiss's écraseur, which was a much more powerful instrument than even the chain écraseur.

RUPTURED UTERUS.

Dr. Champneys showed a specimen of ruptured uterus. The woman, aged 42, had had eight natural labours. In

the present instance the child presented by the breech (right sacro-iliac dorso-posterior) with the legs extended, apparently during labour, as they resumed the normal fœtal attitude after delivery. The uterus hung over to the left as the patient lay on the left side, the abdomen being very flabby. The obstruction consisted in the extension of the legs, which prevented revolution of the fœtus round the curve of the genital canal. The efforts of labour drove the presenting part against the right side of the posterior wall of cervix and vagina, where the rent took place. It was longitudinal, involving a large part of the vagina and the whole of the cervix, and nicking the body of the uterus. It was discovered by the Resident Obstetric Assistant to St. George's Hospital on inserting his hand with a view to bringing down a leg. The woman died next day. The cervix is much ecchymosed, but no thinner than the body of the uterus.

The patient was not seen by the exhibitor until some hours after delivery; but even had she been seen at the time, abdominal section would have probably seemed unsuitable, in the absence of any escape of the fœtus into the abdominal cavity and of the signs of great internal hæmorrhage. The specimen shows that the operation of removal of the uterus and ovaries would have been gravely prejudiced by the extension of the rent some way down the vagina.

Dr. Walter mentioned a case of ruptured uterus he had seen some years ago in consultation with Mr. Robinson and Mr. Morris of Salford. The child was delivered by abdominal section and the rent in the uterus closed with carbolised catgut sutures. The patient made an excellent recovery, but in this case the operation was performed within half an hour or so after the occurrence of the rupture.

The President remarked that when Dr. Champneys gave the Society the full account he was good enough to promise of his interesting case the applicability of Porro's operation to cases of ruptured uterus would be a question of great importance to consider. But in this particular case he was inclined to think as the rent involved the vagina the operation would have been probably inapplicable.

REPORT ON DR. CLEVELAND'S SPECIMEN.

(See p. 117.)

The specimen is similar to the three obtained from the same patient and exhibited before the Society by Dr. Cleveland in 1881, 1882, and 1884. The present specimen is, however, somewhat thicker and wider than that shown in 1881, measuring two and a quarter inches in length, one and a half inches in width, and three quarters of an inch in thickness. It is tubular and flattened, apparently closed at one end, but presenting a transverse opening at the other. (The specimen when received had been opened along the whole of one side, and the closed end and its borders somewhat torn.) It has the shape therefore of the cavity of the uterus. Its inner surface is smooth and presents little pits like the orifice of glands; its outer surface is rough. On microscopic examination it presents the structure of the decidua vera.

We are of opinion that it is of the same nature as the specimen shown in 1881 and reported upon by us—that is that it is the decidua vera of the empty side of an impregnated double uterus.

John Williams.
Alfred L. Galabin.
W. F. Cleveland.

ON THE SEVERE OR SO-CALLED "UNCONTROLLABLE" VOMITING OF PREGNANCY.

The President then read an abstract of Dr. Hewitt's paper read at the last meeting, the discussion on which had been adjourned.

Dr. Barnes felt that the Society was indebted to Dr. Graily Hewitt for bringing so interesting a physiological problem before the Society. This was a case amongst

many which illustrated the aphorism that "pathology was physiology working under difficulties." The so-called uncontrollable vomiting of pregnancy was an example of a physiological process passing the healthy boundary. Rightly to understand the apparently pathological cases, it was in the first place necessary to realise the physiological groundwork. This lies in the exalted vascular and nervous tension peculiar to pregnancy; the rapid construction of the uterus and embryo calls for increased nervous and blood supply; the nervous centres, stimulated to the utmost, easily respond to eccentric excitation, and this ready diastaltic response is a provision for regulating the nerve supply. Unless the occasional and periodical excess of nerve energy stored up found some ready means of escape, dangerous conditions, as eclampsia or other disorders, might ensue. Now, the morning vomiting acts as a regulator of nervous store, like the governor of a steam engine. If we look closely to the character of this vomiting we cannot help seeing that it is allied to convulsion. It is a physiological convulsion, fulfilling a useful purpose. Carrying this idea a little further, we may see in the act of labour itself a work showing strong analogy to convulsion.

This high nervous and vascular tension of pregnancy is a feature that places pregnancy in diametric contrast to puerpery. From the moment that delivery has taken place this tension falls; the great store of nervous energy is discharged. Irritation, which before might provoke vomiting or other forms of convulsion, is now harmless in this respect. Hence the argument that anteversion after labour does not cause vomiting, is entirely beside the question. Dr. Hewitt's theme is the cause of the vomiting in pregnancy. Dr. Champneys fails to realise the broad difference between pregnancy and childbed. So far then as his objection goes, Dr. Hewitt's argument is untouched. Dr. Galabin asserts that tension falls when the embryo dies.

If we study more closely the conditions which concur

to produce uncontrollable vomiting we shall still find that the exciting cause, in most cases at least, springs from the uterus. Dr. Hewitt's explanation of the familiar fact that the vomiting commonly occurs as soon as the patient rises in the morning, namely, that in the upright posture flexion is increased, cannot, I think, be altogether set aside. It contains an element of truth. I would explain it partly on Bretonneau's theory that the vomiting is due to sudden or rapid distension of the uterine fibre. This is induced by the sudden increase of fulness of the vessels of the uterus under hydraulic pressure. This comes just at the time when the nervous centres are in the highest degree of periodical excitability, that is, after rest; and also when the resisting or inhibitory force is weakest from fasting. As the day goes on, the morning vomiting having brought the nervous system to healthy equilibrium, and the strength being restored by food, the vomiting commonly ceases. But, be it noted, the flexion remains. This can hardly then be the all-sufficient cause. In the second and third trimestria, we more frequently witness the most serious and obstinate vomiting. Another factor comes into operation: this is starvation. The embryo, an insatiable parasite, exacts unrelentingly its wonted supply of material. The mother suffers. Vomiting, once exceeding the physiological limit, is repeated, and like other forms of convulsion, tends to recurrence. Nutrition is thus impaired. The system feeds upon itself, that is, it is fed by the products of absorption. The blood is empoisoned. This degraded blood increases the irritability of the nervous centres. And thus, working in a vicious circle, the vomiting increases the nervous irritability, and the nervous irritability responds to slighter provocation. At this stage the induction of labour becomes a serious question. When starvation and emaciation have proceeded to a marked degree the situation is critical. Every act of vomiting acts as a shock; the tension continues; the controlling power is lost. Further evidence of toxæmia is likely to be seen in albuminuria. There is at least the

præ-albuminuric stage, marked by high tension, so well described by the late Dr. Mahomed. And the proclivity to convulsion attending this condition is well known. This is further illustrated by the frequent complication with severe hiccup, another form of convulsion.

It is interesting to note the analogy with some forms of dysmenorrhœa. In the obstructive form vomiting is a frequent symptom. There is at the advent of menstruation increased nervous and vascular tension, and a change in the uterus analogous to that of early pregnancy. There is indeed a mimic pregnancy.

Horwitz's theory of parenchymatous inflammation of the uterus I regard as purely gratuitous. Vomiting is most frequent and severe in primigravidæ whose organs and tissues are in the best physiological condition.

I have not dwelt upon Dr. Hewitt's table of cases. In truth I cannot help thinking that they are too few and too little precise to justify any conclusion. At the same time, from my own clinical observation I am persuaded that there is an element of truth in his theory. Dr. Galabin, with much of whose argument I agree, has not known any case cured by the cradle pessary ; I have, and I regard it as a valuable agent. Dr. Hewitt's theory is too absolute ; but it cannot be overturned by dogmatic denial. I cannot inflict upon the Society the views I entertain upon the question of treatment. I will simply conclude with the remark that the solution of the problem is not to be sought in any one factor. Several causes may excite the vomiting, for example, simple emotion. The one constant factor underlying the whole case is the predisposing cause, the high nervous and vascular tension peculiar to gestation. This implies a convulsive habit.

Dr. Braxton Hicks felt some difficulty in coming after the previous speaker, because his remarks in the main represented his (Dr. Hicks's) views. No doubt the vomiting of pregnancy was a reflex phenomenon dependent upon the vital activities going on in the uterus, and the tension, pres-

sure, and dragging resulting from this; and that we must ascribe to the same causes the severer forms. But he felt a difficulty at the outset in discussing the subject, because the terms "severe" and "uncontrollable" were indefinite, in view of the very great variation which was noticed by everyone in the intensity and frequency of vomiting, and therefore in investigating the causes we could not exclude those of the natural vomiting (if, indeed, one could call it natural, inasmuch as many pregnant women did not vomit at all and many who did, not in all pregnancies) and therefore it would be necessary to take into account cases of every degree. In any case he considered that these severe cases were due to either (1) increased local disturbance, and (2) increased reflex sensitiveness, and (3) to a special idiosyncrasy; for in regard to the two last-named causes he had almost always found, on inquiry, the patient in these severe cases to be of a highly sensitive nature and the act of vomiting easily produced; and in cases where uterine troubles had existed, a quick tendency to vomiting. With regard to the local disturbance he would briefly state his clinical experience. Before Dr. Graily Hewitt had read his first paper on this subject he thought he had been sufficiently observant, but on hearing it he put his opinion on this matter aside, and had ever since, as carefully as he could, examined every case—and they were pretty numerous—but in no single one had he found any local disease nor displacement of the uterus. He had not entered on the investigation hostile; on the contrary, he was anxious to find so easy a solution to the treatment of these trying cases. But though he could only thus give his own experience, he was quite prepared to expect that where the uterus was displaced, or there were tumours causing pressure or abrasions, there vomiting would be intensified, and to admit that the removal of these causes would be the proper course, and that in all cases of severe vomiting a careful examination should be made. But as a matter of fact he had not seen any case which could be called uncontrollable. It was difficult to define "severe," but he

thought it might be considered an urgent case when the pulse began to rise, emaciation occurred, and tenderness at epigastrium and redness of tongue were present. He had, notwithstanding the presence of these symptoms, never seen a case which could not be so far brought under control as to be able to go on to full term ; and it was by some of the group of remedies which were allayers of nerve irritability, of which the opiates stood foremost in effect. But in giving these remedies it was important to success to persevere in order to bring the system under their influence distinctly, and therefore it was necessary to be perfectly certain the doses had been retained, and if ejected to repeat the dose quickly till out of a number rejected some slight portion would be retained ; this could not be entrusted to a nurse,—it must be done by the practitioner himself. There was an element in these severe cases which had not been sufficiently noticed, namely, that after a time there is a state of irritation of the mucous membrane of the stomach akin to gastritis. From the observation of other parts of the body it could be noticed that the extremities of the nerves reflexly irritated were in a condition of high sensitiveness to touch, and the vessels around injected, pouring forth fluid as the result. The same occurs in the stomach, so that after a certain time had elapsed the state of the gastric membrane became itself an important factor of disturbance, and its treatment a necessary step to recovery. For this end the giving of the sedatives by mouth, so that the irritated membrane may be locally soothed, is a better plan than relying on subcutaneous or *per rectum* injection. So far then, he would agree with the author of the paper, that when the local disturbance was found it should, as far as possible, be rectified, without terminating the pregnancy, but from his experience he should be inclined to look upon the exalted nervous sensitiveness as the far more frequent cause of these severe cases.

Dr. Matthews Duncan knew no controllable vomiting of

pregnancy. Medicines might do some good, or, perhaps, in some cases, stop it. This he did not deny. But everyone in practice knew that this vomiting was practically uncontrollable. Often it did not need to be controlled. He placed most reliance on atropia in the common vomiting of pregnancy when excessive. The vomiting of pregnancy was of course stopped by emptying the uterus ; that was not to control it nor really to stop it ; that was to stop the pregnancy. He recognised, meantime, only two kinds of vomiting of pregnancy—the ordinary, natural, physiological, and the pernicious, uncontrollable, very dangerous. The former generally ceased about mid-pregnancy, but it might go on longer, be excessive, and induce emaciation. He was not quite certain that it ever ended fatally. The pernicious kind had been the subject of several recent memoirs and was often fatal, rapidly fatal ; it might begin at any period of pregnancy and run its course slowly or more quickly ; and, till our new knowledge of this kind was used in the investigation of all cases, he would not admit that a fatal result came from the ordinary or physiological kind even though very severe. The pernicious kind was no doubt induced by pregnancy, and in it we had degeneration of organs, granular, fatty, or inflammatory. Cases often presented all the characters of icterus gravis, but they varied much ; from the apparently simple cases of fatty degeneration of Hecker, Grainger Stewart and others, to cases with symptoms more or less like those of Bright's disease or of yellow atrophy of liver. They presented great prostration, often bleedings, often albuminuria more or less considerable, also often bile in the urine ; sugar even had been observed. Such cases were not always fatal. He was disposed to regard this pernicious vomiting as certainly sometimes passing off after delivery, or, perhaps, even before it. It often led to death of the fœtus. He knew of no remedy but emptying the uterus.

Dr. PLAYFAIR said that it was impossible to have

listened to Dr. Hewitt's elaborate and carefully-studied paper without feeling indebted to him for his painstaking elucidation of this important subject. The remarks that have already fallen from various speakers clearly showed, however, that Dr. Hewitt, in spite of all his trouble, and in spite of the well-merited authority with which he necessarily spoke, had failed to carry conviction to the minds of his hearers. Dr. Hewitt was doubtless by this time so accustomed to scepticism as to his theory of flexions that this had probably little influence with him. We were all doubtless apt to ride our hobbies too hard; but really, in this respect, Dr. Hewitt seemed to him to carry off the palm with ease. The way he bestrode that well-known, and now rather aged animal, "uterine flexion," and the determined and courageous manner in which he rushed him at every fence and obstacle that came in his way, was a sight well worth coming to the Society to see. He had met with many a hard fall, but he was always to the fore again, as fresh and plucky as ever. This being so, Dr. Hewitt would doubtless pardon him if he ventured to criticise pretty plainly the views enunciated in his paper. As a general rule it was the custom when upholding any particular view to fit the theory to the facts; Dr. Hewitt, however, adopted a very ingenious, and from his standpoint, excellent method, it was needless to say with perfect *bona fides* and unconsciousness, of shaping the facts to fit his theory. In order to prove this it was only necessary to study a little closely the table of cases he had placed in their hands. Amongst these were a number taken from Horwitz's well-known paper. Dr. Hewitt somewhat triumphantly pointed to Horwitz's cases. Here, he says, is a man who collects a number of instances of intractable vomiting; he arrives at a totally wrong conclusion as to the cause; while as a matter of fact in all, or almost all, of these, deviations of position were found to exist, which, therefore, were the true explanations which he had overlooked. But when we looked at the cases what did we find? Case No. XXIII. Here no doubt the cervix was noted as far back and difficult

to reach ; therefore the uterus was probably anteverted, but there was "firm perimetritic adhesion on the left side." Again, No. XXVI. Here again there was displacement, but besides this there was "an irregular tumour, sensitive to the touch, felt to left and behind the uterus." Again we found, "evident parenchymatous metritis," "other inflammatory conditions," "much tenderness," and so on, noted, and these Dr. Hewitt calmly put aside as having no bearing on the case, while he triumphantly pointed to the slightest deviation which was noted, as if such deviation might not well be an absolutely normal condition such as might be found in almost any pregnant woman subjected to careful examination. That well-marked flexions were often causes of severe vomiting was beyond question. But the attempt to force all cases of such vomiting into one groove, to explain them all, or almost all, on the same theory, seemed to be a most erroneous and narrow way of looking at the subject, and one which would infallibly lead to serious errors of practice.

This tendency to form a cut and dried theory of disease was always a dangerous one in medicine ; it seemed specially so in regard to diseases of the reproductive organs, the special characteristics of which, and one far too much overlooked by general physicians as well as specialists, was their wide sympathetic relations with other viscera. If there was one fact about the vomiting of pregnancy more plain than another it seemed to be this, that it was merely an intense variety of a neurosis, often met with in a modified degree when any disturbed uterine state was present, and that it was one only of the many neuroses which accompany pregnancy, of which, indeed, it was a more or less normal symptom. Who, for example, had not seen equally intense vomiting accompanying some forms of pelvi-peritonitis, when there was no suspicion of uterine deviation ? Was it not a common phenomenon in some varieties of dysmenorrhœa, or in certain cases of endometritis ? Did these differ at all from the vomiting of pregnancy except in degree ? Certainly not. The plain

fact was that any uterine irritation whatever, and amongst these deviations held a not unimportant place, might cause it, and it was met with more often in pregnancy, simply because pregnancy was so common and so often observed. Long ago it was pointed out by Dr. Bedford, of New York, that in cases of pregnancy in which there was no vomiting, some other form of neurosis, often more distressing, such as faintings, or palpitations, were apt to be present, and he actually used to prescribe ipecacuanha as an emetic to bring on sickness artificially, under such conditions; and there was probably much truth in his observations. He (Dr. Playfair) would not trespass further on the patience of the Society with remarks as to treatment, but would merely point out that in every case of intractable vomiting we should first try to find out what is the special form of irritation that is producing it. If deviations exist we should by all means try and remedy them if we can safely do so, although there was much to be said as to the risks of the indiscriminate use of pessaries and cervical dilatation during pregnancy, but above all things we should take a broad and scientific view of the whole question, and should not be tempted by any such exclusive theory as that advocated by Dr. Hewitt to overlook other concomitant conditions such as those he (Dr. Playfair) had already alluded to, and of which Dr. Hewitt made so light.

Dr. Cleveland said he did not rise for the purpose of disputing what he understood to be the contention of the author, viz. that in many cases there was a relation between the recognisable condition of the uterus and the vomiting of pregnancy. He thought, if it be admitted that a woman might be brought to the very verge of the grave through vomiting and emaciation, resulting from reflex irritation of the stomach, without there being evidence of any special pain, irritation, or disease of the gravid uterus (and he quoted as an authority for this statement the case published in the first volume of the

'Transactions' by the late Dr. Tyler Smith) it might well be that a retroflexed and perhaps semi-strangulated organ would tend to an aggravation of the symptoms. But he believed the general conclusion arrived at by the Society would be that the relation of the ascertainable condition of the uterus with at all events the less severe forms of vomiting, could not be regarded in the light of cause and effect. It would seem that pregnancy is a disturber of the nervous equilibrium and in some constitutions may manifest its early influence through the production of a toothache, whilst in others it may set up a grave neurosis, maybe of the pneumogastric nerve. His object, however, was to direct attention to a point that was thought by many to be under rather than over-rated, viz. the danger to life through excessive and long-continued vomiting in pregnancy, and to inquire what is the most probable mode in which death is brought about. He would ask, is not failure of the heart's action, syncope, or death by asthenia the most common mode of dying under these circumstances, and if so, as one of the means of averting the tendency to that end, ought we not to enjoin the great necessity of rest in the recumbent posture? His view would be illustrated in the following case:—In the summer of last year he was called to a patient, aged 33, whom he had attended in several previous labours. She had had a syncopal attack before his first visit. She complained of feeling very weak, was most depressed through domestic trouble, and vomited almost everything. Various remedies for relief of the sickness were tried without much benefit. Pregnancy as the cause of the vomiting was suspected, and the question of inducing abortion was mooted. After about a fortnight's treatment he was called to her unexpectedly in the night, and found her in *articulo mortis*. Contrary to strict injunctions she had got out of bed and had suddenly fainted. The body was examined on the following day. The heart walls were thin and cavities rather dilated; left side comparatively empty. No valvular disease. Liver larger than natural, and congested;

intestines very empty; uterus contained an ovum of about ten weeks. Other conditions normal.

Dr. Murray was disinclined to believe that other organs must necessarily be implicated when pernicious vomiting existed, for, if so, why did the vomiting cease, at least sometimes, when the os uteri is dilated? He briefly gave notes of a case he had recently seen in consultation, where dilatation stopped the sickness for some days, but the patient died from exhaustion, after expelling the uterine contents. There was no displacement of any kind in this case. Dr. Murray thought that after a fair trial of remedies had been made, an early interference was more likely to save the patient than by waiting too long.

Dr. Wynn Williams remarked that he had had a pretty extensive experience in cases of flexions of the uterus, but he was bound to say that he had not found severe vomiting more common in those cases than in others where there was no displacement, and he did not think that displacements of the uterus, when unaccompanied by adhesions or fixity of the organ, induced so-called uncontrollable sickness. If the organ were bound down by adhesions or otherwise and could not expand equally, he considered that neurosis might be set up accompanied with extensive sickness. He had known two deaths from sickness during pregnancy, but in both cases death was due to alcoholism with extensive disease of the liver, and the end would have been the same under any circumstances. Some few months back he was requested to give his opinion under the following circumstances. A lady had been suffering from persistent sickness for some time without relief when her medical attendant proposed passing a sound just within and around the os uteri. Before doing so he (Dr. Williams) was requested to give his opinion. He at once said he could not see any objection as he had frequently known sickness checked by the insertion of the finger in and around the os. Consequently it was done and the sickness ceased.

Dr. Bantock said: There are few subjects more appropriate for discussion by this Society than that which has been so ably brought before us by Dr. Graily Hewitt. It is one of those obscure subjects which are eminently open to debate, and one which, though constantly before the obstetrician, does not appear to have attracted that amount of attention which it deserves. That the discussion should have elicited diametrically opposing views might have been anticipated from the well-known divergence between the views of the author of the paper and some of the speakers. For my part, I endeavour to avoid extremes, and to steer that middle course which is said to be the safest.

Now, it has not been—shall I say my misfortune?—to meet with a single case of uncontrollable vomiting during pregnancy, but I imagine my experience has been that of every man who has had an average experience during about twenty years of practice. I have seen a large number of cases in which the sickness has been sufficiently severe to induce the patient to seek relief, but I have never been called upon to resort to any extraordinary measures.

While I hold that versions and flexions of the uterus are not the innocent conditions which some would have us believe, yet I am not prepared to accept Dr. Hewitt's explanation in all the cases, nor even in many of the cases in which he seems to regard displacement as the *fons et origo mali*. It is too one-sided. I have seen too much of the displacements of the unimpregnated uterus, of the symptoms to which they give rise, and of the relief which a rectification of the displacement affords not to regard as untenable the views of those who would have us ignore them. And while I hold this opinion it appears to me that when we come to deal with the impregnated uterus new elements are introduced which render the case much more complicated and obscure our view, and which have been in some measure overlooked.

When we look over the list of cases given by Dr.

Hewitt we cannot but be struck with the very great frequency with which the symptom under discussion is associated with the early stage of pregnancy. Now, it is the experience of every man that one of the most frequent, and perhaps the most important symptom of early pregnancy is what is popularly called "morning sickness," whether there has been any known preceding displacement or not. But this is also the period at which displacement, if it play any part at all, is most likely to produce results. Hence the most exaggerated and opposing views may be arrived at if the greatest care be not exercised.

We were told at the last meeting by Dr. Galabin—and I should like to say here that there is no one in this Society to whose opinion I pay greater respect than to that of Dr. Galabin, and he always expresses himself so clearly that it is to me a great pleasure to listen to him—I say we were told by Dr. Galabin that he is in the habit of teaching that one of the most reliable signs of early pregnancy is a state of anteflexion of the uterus—and this appears to be the general teaching of the present day—and he argued thence that as anteflexion is so constant in the early stage, and as the sickness of pregnancy, at least in its troublesome variety, is so rare, therefore there can be no connection between the two. To my mind, if this teaching be correct, it affords the strongest confirmation of Dr. Hewitt's views, for this anteflexion may be held as accounting for the almost invariable occurrence of sickness in the early stage.

But there is a fallacy underlying Dr. Galabin's teaching which I now proceed to point out.

We all know, at least I presume we are agreed, that the unimpregnated uterus is a pear-shaped body, slightly convex on its posterior, and slightly concave on its anterior face, and that in its normal position it forms a slightly acute angle with the vagina, or in other words that it is in a state of so-called slight anteversion. Now, the term anteversion is employed to denote a pathological or ab-

normal condition, and I think it would avoid confusion were it not used except in this sense. Hence, you will observe, I say so-called anteversion. Soon after impregnation takes place the body loses this peculiar form, and instead of the cavity being what may be called a closed or collapsed cavity, with its two flattened surfaces lying in close apposition to one another, it assumes a more or less rounded, globular or ovoid shape. As the ovum grows the anterior wall bulges more and more and soon begins to assume in its relation to the cervix what may be easily mistaken for a state of anteflexion. As pregnancy proceeds this becomes more and more pronounced until at last the body, at its junction with the cervix, forms with the cervix a more or less acute angle. So that if in the early stage the uterus may be said to be slightly anteflexed, at or near full term it may be said to be acutely flexed. But it must be evident that this is a misuse of terms, and it appears to me as great an error in fact as the old notion that the cervical cavity was obliterated by being gradually taken up into that of the body. This was the teaching of my first text-book, in which it may be read that "at the end of gestation the cervix is so completely opened out that it forms part of the general cavity." We now know how utterly wrong that idea is, and, if I am right in the explanation I have offered, how fallacious then must any argument be either for or against views founded on the idea that anteflexion is to be regarded as a sign of early pregnancy. I have long been convinced that the teaching on this point is utterly wrong.

Now, it would be tedious, and time will not permit me, to go through Dr. Hewitt's list of cases in the way of analysis, but I may be allowed to point out that while some of the cases, such as those of Stoltz and Moreau (V and VI) undoubtedly support the author's contention—inasmuch as the sickness ceased immediately after the replacement of the organ—on the other hand, others lend him no support. Such are the cases in which the sickness is reported as occurring at the fifth month, the sixth month, and even

the seventh and eighth months. It is inconceivable that at these late periods there can be any flexion or version of the organ.

It appears to me that we must look to a pathological condition of the uterine body itself, in other words a state of excessive irritability, especially about the internal os. Here the author is on surer ground, and I think he should have given greater prominence to this than to the condition of displacement.

There is nothing more easy of demonstration than that excessive tension of the muscular- and nerve-fibres of the internal os produces sickness of a severe character. This is to be seen almost invariably when we use a tangle tent for the purpose of dilatation, and I have frequently observed it when using the bougie. In the case of the tent it might be supposed that the whole cervix was equally to blame, and it would, indeed, be difficult to say, in such a case, whether the external os was not as much the source of the reflex action as any other part, but it is easily demonstrated with the bougie, as, for example, in a case of stenosis of the internal os, that the site of this reflex irritation is the internal os itself; for as soon as the instrument passes through it the sickness begins, and it ceases as soon as it is withdrawn, though it may still occupy the cervical canal. On the other hand I have never known any amount of dilatation of the external os produce sickness.

Again, what is more common than the observation that, when vomiting occurs during the act of labour it is precisely when the internal os is being forcibly dilated, when the bag of membranes or presenting part is well engaged in it?

That the uterine fibres at or near the internal os may be subjected to more tension than in other parts when the organ is displaced backwards is not difficult to conceive, but that there could be any such result when the organ is said to be anteflexed, and much more when it is said to be anteverted, passes my comprehension. That sickness is

absent in some cases of retroversion is no more an argument against the sufficiency of the explanation in others—either on the theory of tension or displacement—than that because in some cases of uterine fibroid there is no menorrhagia, therefore in those cases in which menorrhagia is a prominent symptom it can have no dependence on the presence of the fibroid. Every day we meet with similar contradictions in all departments of the healing art.

If, then, we are to arrive at a solution of this difficult question it will not be by a blind adherence to particular doctrines which have nothing to commend them but a spirit of negation, nor by ignoring certain conditions because they do not fall in with preconceived ideas—ideas which are more theoretical than the results of experience—but by a candid consideration of all circumstances, and, as I believe, on the lines I have thus faintly sketched out.

Dr. Heywood Smith, in answer to an observation of Dr. Roper, maintained that pregnancy was not necessarily a cure of anteflexion, as the body only of the uterus being involved in the process of gestation the cervix remained in its anteflexed condition until parturition took place. The condition that Dr. Bantock referred to as anteflexion in the normal state and in natural pregnancy might with more propriety be termed a state of antecurve, which was the normal condition in the fœtus. He had a case under his care of a lady within seven days of her confinement who had persistent vomiting all through her pregnancy; this he considered due partly to an old chronic ovaritis on the right side, and also to the probable existence of a small fibroid in the uterine wall. Another case where vomiting existed until delivery he considered due to a chronic cervitis. Dr. Barnes had referred to the explanation of morning sickness to the fact that it depended on the patient assuming the upright position on rising from bed, whereas he (Dr. H. Smith) considered it—inasmuch

as many women had nausea on waking and before they rose—due to the waking up of the uterus and its renewed energy acting reflectively on the empty stomach.

Dr. Graily Hewitt, in reply, said that some of the speakers seemed to have misapprehended the nature of the conclusions expressed in the paper. The opinion deduced from the cases given in the paper was that, taking the vast majority of cases, there were two factors capable of interfering with expansion of the uterus and thus causing the vomiting, viz. (1) altered position or incarceration, and (2) induration of tissues near the internal os; and that these might be conjoined.

In reference to Dr. Champneys's remarks that the cases were given too briefly to enable a judgment to be formed on them, he would say that had they been lengthened his paper would have been too long; he had been very careful to give the facts faithfully.

In reply to Dr. Galabin he would refer to some of Horwitz's cases for proof of the existence of impaction, and the difficulty of relief of this impaction in certain cases of anteflexion. Dr. Galabin thought the results of the therapeutic efficacy test applied to the cases selected not favorable to the views set forth. In reply, he would call attention to the fact that in five out of twenty-seven typical cases the sickness was cured by elevating and placing the uterus in a normal position, and in two others it was at once relieved by such replacement; but in these two latter cases the cure was not permanent, for in one no attempt was made to maintain the uterus in proper position, and in the other the maintenance in position was found impossible. Further, there are five other cases of severe sickness cured by positional treatment, by rest, and by measures calculated to prevent occurrence of impaction. He considered these results as demonstrative of the value of the particular treatment.

Dr. Barnes's contribution to the discussion he considered most valuable, and he was much pleased to find that Dr.

Barnes had observed patients relieved by use of mechanical appliances in cases of anteversion.

From Dr. Braxton Hicks's statement it was evident he had not met with really severe cases, and in fact such are not very common. Dr. Hicks, however, seemed to consider severe sickness might be caused by displacement. As to gastritis in cases of severe vomiting he had observed it in uterine cases not associated with pregnancy. In fact uterine sickness, apart from pregnancy, might be so severe as to occasion vomiting, even of blood. He agreed with Dr. Hicks in considering it an open question if vomiting is really natural to pregnancy.

Dr. Matthews Duncan had mentioned a new theory in explanation of uncontrollable vomiting of pregnancy, but it did not appear that any demonstration had yet been offered as to the frequent occurrence of degeneration of liver, kidneys, or other organs, of the kind alluded to by Dr. Duncan in such cases.

With reference to Dr. Playfair's remarks as to his "riding a hobby," he would remind the Fellows of the Society that some few years ago Dr. Playfair made precisely the same criticism on a paper he (Dr. Graily Hewitt) had then read, but that a year or two afterwards, before the same Society, Dr. Playfair stated that since he had read Dr. Hewitt's book he had found reasons to think differently on the subject. Now, he would express the hope that when Dr. Playfair had examined into the merits of the question at present under discussion, and studied the arguments a little further he would undergo a like revulsion of feeling a second time. As to the cases brought forward being selected as being favorable to the argument in the paper, that was a little contradicted by the existence in the table of the two cases to which Dr. Playfair had directed attention as non-confirmatory of the views expressed. The fact was that the cases cited were all he had been able to find illustrative of the question investigated, whatever their import. One thing apparently Dr. Playfair did not doubt, viz. that incar-

ceration of the uterus was capable of giving rise to vomiting.

Dr. Cleveland's remarks on the great importance of paying attention to the asthenia present in these cases would command universal assent.

Dr. Murray's remark on the suddenness of the relief in the mechanically relieved cases was most important. The case Dr. Murray had related was very interesting, and the facts of that case appeared to favour the views in the paper.

He would answer an important question put by Dr. Granville Bantock in the course of his observations, viz.: What was the explanation of vomiting after the middle of pregnancy? He had discussed this in the paper and pointed out that it was probably due to the continued distension and increase in size of the uterus still operating on indurated tissues near the os internum.

In conclusion, he begged to thank the Society for the care and consideration given to the paper.

INDEX.

PAGE

Abdominal section in a case of hæmato-salpinx and papillomatous ovarian cyst (J. Knowsley Thornton) . . 4
—— tubal fœtation removed by (Sydney Jones) . . 268
Absorption, with ultimate recovery, of thrombosis of the pulmonary artery in the puerperal state (W. S. Playfair) . 162
Adams (William), *Report* on specimens of spondylolisthesis shown by F. L. Neugebauer 186
—— *Remarks* in discussion on F. L. Neugebauer's specimens illustrating spondylolisthesis 84
Address (*Annual*) *of the President*, Henry Gervis, M.D., February 6th, 1884 33
—— of condolence to H.M. the Queen on the death of H.R.H. the Duke of Albany 116
—— —— to H.R.H. the Duchess of Albany on the death of H.R.H. the Duke of Albany 116
Adherent ovaries, prolapsed (W. S. A. Griffith) . . 270
Albany, death of H.R.H. the Duke of, motion for addresses of condolence 85
Angioma of labium (Matthews Duncan) . . . 118
Annual General Meeting, February 6th, 1884 . 27
Auvard's couveuse, or nest (Matthews Duncan) . . 25
Aveling (J. H.), *Report* as Chairman of the Board for the Examination of Midwives 31
—— a dilator (shown) 149
—— soft myoma of the uterus showing early cystic degeneration, removed by hysterectomy (shown) . . 270
—— *Remarks* in discussion on John Williams' paper on the corroding ulcer of the os uteri . . . 81
—— —— in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring 131

PAGE

Aveling (J. H.), *Remarks* in discussion on J. H. Mathieson's case of extra-uterine gestation . . . 142
—— —— in discussion on J. A. Mansell Moullin's case of inversion of uterus 159
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus . . . 263
Avulsion, post-partum, of the uterus (J. Hopkins Walters) . 233

Bantock (G. G.), fibroid tumours of the uterus (shown) . 119
—— surgical needles and holder (shown) . . . 271
—— *Remarks* in discussion on J. H. Mathieson's case of extra-uterine gestation 142
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 343
Barnes (Fancourt), cephalotribe (shown) 27
—— *Remarks* on Auvard's couveuse, or nest . . 25
—— —— in discussion on Graily Hewitt's and S. G. Shattock's specimen of spondylolisthesis . . . 155
—— —— on R. Barnes' glass injection-tube . 232
—— —— in discussion on surgical needles and holder shown by G. G. Bantock 271
Barnes (Robert), *Report* on specimens of spondylolisthesis shown by F. L. Neugebauer 186
—— cystic disease of ovary in its earliest stage (shown) . 157
—— glass female catheter (shown) . . . 232
—— —— injection-tube (shown) 232
—— ovarian tumour with twisted pedicle (shown) . . 59
—— *Remarks* on Fancourt Barnes's cephalotribe . . 27
—— —— in discussion on F. L. Neugebauer's specimens illustrating spondylolisthesis 84
—— —— in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition . 112
—— —— in discussion on J. A. Mansell Moullin's case of inversion of uterus 160
—— —— in discussion on W. S. Playfair's paper on the absorption of thrombosis of the pulmonary artery in the puerperal state 169
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus . . 264, 266
—— —— in discussion on C. Godson's specimen of large fibrous polypus 328
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 331

PAGE

BEACH (Fletcher), *Remarks* in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring . . . 130
Blease, Thomas, of Altrincham, obituary notice of . . 42
BOXALL (Robert), adherent placenta (shown) . . 58
—— cyst of placenta (shown) 59
BROADBENT (W. H.), *Remarks* in discussion on W. S. Playfair's paper on the absorption of thrombosis of the pulmonary artery in the puerperal state . . 168-9
Broad ligament cysts (J. Knowsley Thornton) . . 55
—— (E. Malins) 228
BRUNTON (John), *Remarks* in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus . . 265
Bye-laws, Chapter xv.—*Of the Board for the Examination of Midwives* 23

Calculus, vesical (C. Godson) 181
Cancerous uterus removed by Schroeder's operation (W. A. Duncan) 27
CARTER (C. H.) double dermoid ovarian cysts (shown) . 86
—— *Remarks* in discussion on J. H. Mathieson's case of extra-uterine gestation 143
—— —— in discussion on John Williams' paper on the involution of the puerperal uterus in the absence of the ovaries. 205
Catheter, glass female (R. Barnes) . . . 232
Cephalotribe (Fancourt Barnes) 27
Cervix, see *Uterus* (cervix of).
CHALMERS (J.), *Remarks* in discussion on John Williams' paper on the corroding ulcer of the os uteri . . . 79
CHAMPNEYS (F. H.), *Report* as Hon. Librarian for 1883 . 30
—— ruptured uterus (shown) 329
—— *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 20
—— —— in discussion on Alban Doran's paper on the relation of prolapse of the vagina to hernia . . . 91
—— —— in discussion on J. H. Mathieson's case of extra-uterine gestation 142
—— —— in discussion on Matthews Duncan's paper on fœtal revolutions 179
—— —— in discussion on W. F. Cleveland's specimen of double uterus with deciduous membrane . . . 185

PAGE

CHAMPNEYS (F. H.), *Remarks* in discussion on Matthews Duncan's and J. B. Hurry's paper on extensions or retroflexions of the fœtus, especially of the trunk, during pregnancy . 225
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus . . . 264
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy 322
CLEVELAND (W. F.), deciduous membrane of pregnancy, probably from the unimpregnated half of a double uterus (shown) 117
—— *Report* on deciduous membrane of pregnancy . . 331
—— double uterus with deciduous membrane (shown) . 184
—— *Remarks* in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring 131
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 340
Corroding ulcer, on the, of the os uteri (John Williams) . 60
Couveuse, Auvard's, or nest (Matthews Duncan) . . 25
Cysts, see *Ovarian.*
—— see *Tumours.*
Cystic degeneration of the cervix uteri (H. Gervis) . . 144
—— disease of ovary in its earliest stage (R. Barnes) . 157

DALY (F. H.), *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 17
Deciduous membrane of pregnancy, probably from the unimpregnated half of a double uterus (W. F. Cleveland) . 117
—— with double uterus (W. F. Cleveland) 184
Depaul, Jean Henri, M.D., of Paris, obituary notice of . 48
Dermoid cyst of the ovary (Heywood Smith) . . 57
—— double, ovarian cysts (C. H. Carter) 86
Dicephalous fœtus (P. Horrocks) 326
Dilator (J. H. Aveling) 149
DORAN (Alban), *Report* on specimens of spondylolisthesis shown by F. L. Neugebauer 186
—— the relation of prolapse of the vagina to hernia, illustrated by two pedigrees 88
—— *Remarks* in reply 91
—— ruptured secondary cyst in the wall of a multilocular ovarian tumour (shown) 118

PAGE

DORAN (Alban), *Remarks* in discussion on J. Knowsley Thornton's specimen of uterine fibroids, with multilocular ovarian cysts and broad ligament cyst . . . 56
—— —— on W. S. A. Griffith's specimen of uterine cyst . 230
Double uterus, deciduous membrane of pregnancy, probably from the unimpregnated half of a (W. F. Cleveland) . 117
—— deciduous membrane with (W. F. Cleveland) . . 184
DUNCAN (Matthews), *Motion* of condolence on the death of B. R. Wheatley 2
—— angioma of labium (shown) 118
—— Auvard's couveuse or nest (shown) . . . 25
—— on fœtal revolutions 171
—— and J. B. HURRY, on extensions or retroflexions of the fœtus, especially of the trunk, during pregnancy . 206
—— *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 19
—— —— in discussion on John Williams' paper on the corroding ulcer of the os uteri 79
—— —— in discussion on Alban Doran's paper on the relation of prolapse of the vagina to hernia . . . 91
—— —— in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring 131
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 336
DUNCAN (William A.), cancerous uterus removed by Schroeder's operation (shown) 27
—— ovarian tumour (shown) 229
—— pedunculated fibroid (shown) 186
—— *Remarks* in discussion on John Williams' paper on the corroding ulcer of the os uteri 79
—— —— in discussion on E. Malins' case of extirpation of the uterus 148

EDIS (A. W.), *Remarks* in discussion on G. G. Bantock's specimens of fibroid tumours of the uterus . . . 122
—— —— in discussion on J. H. Mathieson's case of extra-urerine gestation 143
Elections of New Fellows . . 1, 24, 53, 115, 181, 267, 325
Electric speculum (Heywood Smith) . . . 179
Emotion, strong mental, affecting pregnant women as a cause of idiocy in the offspring (A. Mitchell) . . . 124

PAGE

Extensions, on, or retroflexions of, the fœtus, especially of the trunk, during pregnancy (Matthews Duncan and J. B. Hurry) 206
Extirpation of the uterus (W. A. Duncan) . . . 27
—— (E. Malins) 148
Extra-uterine gestation, delivery of living child per vaginam, removal of placenta, recovery (J. H. Mathieson) . . 132

Fellows, see *Lists, Election.*
Fibro-cellular tumour of labium (J. B. Potter) . . 228
Fibro-cystic disease of uterus; hysterectomy (Heywood Smith) 58
—— myoma of uterus (J. Knowsley Thornton) . . 54
—— —— (H. A. Lediard) 193
—— tumour and uterine fibroids; hysterectomy (J. Knowsley Thornton) 3
Fibroid, see *Tumours* (fibroid).
Fibro-myoma of the uterus (J. Knowsley Thornton) . . 269
—— —— (W. Walters) 326
Fibrous polypus (C. Godson) 328
Fielden (W. E.), see *Galabin.*
Fœtal revolutions (Matthews Duncan) . . . 171
Fœtation, see *Pregnancy.*
Fœtus, dicephalous (P. Horrocks) . . . 326

Galabin (A. L.), *Report* on deciduous membrane of pregnancy shown by W. F. Cleveland 331
—— for *W. E. Fielden,* cyst removed from the vulva (shown) . 56
—— *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 16
—— —— in discussion on John Williams' paper on the corroding ulcer of the os uteri 80
—— —— in discussion on W. S. Playfair's paper on the absorption of thrombosis of the pulmonary artery in the puerperal state 169
—— —— in discussion of Matthews Duncan's paper on fœtal revolutions 178
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 323
Gervis (Henry), *Annual Address as President,* February, 6th, 1884 33
—— *Motion* of condolence on the death of B. R. Wheatley . 2
—— case of cystic degeneration of the cervix uteri . . 144

PAGE

GERVIS (Henry), *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures . . . 16, 22
—— —— on W. A. Duncan's specimen of cancerous uterus removed by Schroeder's operation . . . 27
—— —— on P. Horrocks's specimen of wooden ring pessary worn for six years, with the lumen entirely filled up by deposit 54
—— —— in discussion on J. Knowsley Thornton's specimen of uterine fibroids, with multilocular ovarian cysts and broad-ligament cyst 56
—— —— on R. Boxall's specimen of cyst of placenta . 59
—— —— in discussion on John Williams' paper on the corroding ulcer of the os uteri 78
—— —— in discussion on F. L. Neugebauer's specimens illustrating spondylolisthesis 84
—— —— in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition . 109
—— —— in discussion on G. G. Bantock's specimens of fibroid tumours of the uterus 123
—— —— in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring 129
—— —— in discussion on J. H. Mathieson's case of extra-uterine gestation 142
—— —— on R. Barnes' specimen of cystic disease of ovary in its earliest stage 158
—— —— in discussion on Matthews Duncan's paper on fœtal revolutions 177
—— —— in discussion on Wm. Walter's portable transfusion apparatus 183
—— —— in discussion on W. F. Cleveland's specimen of double uterus with deciduous membrane . . 185
—— —— on H. A. Lediard's case of fibro-cystic myoma of uterus with septicæmia 198
—— —— in discussion on John Williams' paper on the involution of the puerperal uterus in the absence of the ovaries 205
—— —— in discussion on Matthews Duncan's and J. B. Hurry's paper on extensions or retroflexions of the fœtus, especially of the trunk, during pregnancy . . 225
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus . . 263, 265

PAGE

GERVIS (Henry), *Remarks* on W. S. A. Griffith's specimen of prolapsed adherent ovaries 271
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 321
—— —— in discussion C. Godson's specimen of large fibrous polypus 329
—— —— in discussion on F. H. Champneys' specimen of ruptured uterus 330
Gestation, see *Pregnancy*.
Glass-injection tube (R. Barnes) 232
—— female catheter (R. Barnes) 232
GODSON (Clement), large fibrous polypus (shown) . . 328
—— pessary for retroversion and prolapse (shown) . . 272
—— vesical calculus (shown) 181
—— *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 19
GRIFFITH (John T.), *Remarks* in discussion on John Williams' paper on the corroding ulcer of the os uteri . . 80
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus 265
GRIFFITH (W. S. A.), Mollities ossium of pelvis (shown) . 230
—— prolapsed adherent ovaries (shown) 270
—— uterine cyst (shown) 229
—— *Remarks* in discussion on J. H. Mathieson's case of extra-uterine gestation 143

Hæmatocele the result of malignant disease (W. S. Playfair) . 6
Hæmato-salpinx, papillomatous ovarian cyst; abdominal section (J. Knowsley Thornton) 4
Harper, Philip, F.R.C.S., of Cambridge Street, Hyde Park, obituary notice of 44
Hecker, Carl, M.D., of Munich, obituary notice of . . 45
HERMAN (G. E.), *Remarks* in discussion on John Williams' paper on the corroding ulcer of the os uteri . . 80
—— —— on H. Gervis' case of cystic degeneration of the cervix uteri 145
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus 265
—— —— in discussion on C. Godson's specimen of large fibrous polypus 328
Hernia, the relation of prolapse of the vagina to, illustrated by two pedigrees (Alban Doran) 88

PAGE

HEWITT (Graily), on the severe or so-called "uncontrollable" vomiting of pregnancy 273
—— *Remarks* in reply 341
—— —— in discussion on E. S. Tait's paper on puerperal temperatures 17
—— and S. G. SHATTOCK, specimen of spondylolisthesis (shown) 149
HICKS (J. Braxton), *Remarks* in discussion on Wm. Walter's portable transfusion apparatus . . . 183
—— —— in discussion on J. Hopkins Walters' paper on post-partum avulsion of the uterus . . . 263
—— —— on C. Godson's pessary for retroversion and prolapse 272
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 334
HORROCKS (P.), case of rupture of the uterus and vagina (shown) 119, 260
dicephalous fœtus (shown) 326
—— placentæ and membranes from a case of triplets (shown) . 160
—— wooden ring pessary worn for six years, with the lumen entirely filled up by deposit (shown) . . . 54
—— *Remarks* in discussion on Alban Doran's paper on the relation of prolapse of the vagina to hernia . . 91
—— —— in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition . 111
—— —— in discussion on C. Godson's specimen of large fibrous polypus 328
HURRY (J. B.) and MATTHEWS DUNCAN on extensions and retroflexions of the fœtus, especially of the trunk, during pregnancy 206
Hysterectomy in a case of uterine fibroids and fibro-cystic tumour (J. Knowsley Thornton) . . . 3
—— fibro-cystic disease of uterus (Heywood Smith) . . 58
—— soft myoma of the uterus, showing early cystic degeneration, removed by (J. H. Aveling) . . . 270

Idiocy in the offspring, strong mental emotion affecting pregnant women as a cause of (A. Mitchell) . . 124
Induced current during parturition, upon the benefits derived from the (W. Kilner) 93
Inflammation, chronic papillary, of the vulva (W. O. Priestley) 156
Injection tube, glass (R. Barnes) 232
Inversion of uterus (J. A. Mansell Moullin) . . 158
Involution of the puerperal uterus in the absence of the ovaries (John Williams) 203

PAGE

JENNINGS (C. E.), *Remarks* in discussion on surgical needle and holder shown by G. G. Bantock . . . 271
JONES (Sydney), for *Lawson Tait*, tubal fœtation removed by abdominal section (shown) 268

KILNER (W.), upon the benefits derived from the induced current during parturition 93
—— *Remarks* in reply 113

Labium, angioma of (Matthews Duncan) . . . 118
—— fibro-cellular tumour of (J. B. Potter) . . . 228
Labour, see *Parturition.*
Laws, see *Bye-laws.*
LEDIARD (H. A.), fibro-cystic myoma of uterus. Septicæmia (shown) 193
Library, hours of attendance at lxiv
List of Officers elected for 1884 29
—— *of ditto for* 1885 v
—— *of past Presidents* vii
—— *of Referees of Papers for* 1885 . . . viii
—— *of Standing Committees* ix
—— *of Honorary Local Secretaries* . . . x
—— *of Honorary Fellows* . . . xi, xii
—— *of Corresponding Fellows* xiii
—— *of Ordinary Fellows* xiv
—— *of Deceased Fellows* [with obituary notices, which see] 42-49

MALINS (Edward), broad-ligament cysts (shown) . . 228
—— extirpation of the uterus (shown) . . . 148
—— pyosalpinx (shown) 228
—— *Remarks* on W. A. Duncan's specimens of ovarian tumour 229
MATHIESON (J. H.), case of extra-uterine gestation, delivery of living child per vaginam, removal of placenta, recovery . 132
Membranes and placentæ from a case of triplets (P. Horrocks) 160
MITCHELL (Arthur), strong mental emotion affecting pregnant women as a cause of idiocy in the offspring . . 124
Mollities ossium (W. S. A. Griffith) . . . 230
MOULLIN (J. A. Mansell), inversion of uterus (shown) . 158
MURRAY (G. C. P.), *Remarks* in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition 113
—— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 342

PAGE
Murray, Jardine, of Brighton, obituary notice of . . 42
Multilocular ovarian cysts (J. Knowsley Thornton) . . 55
—— —— (William Walter) 148
—— —— tumour, ruptured secondary cyst in the wall of (Alban Doran) 118
Myoma, fibro-cystic, of uterus (J. Knowsley Thornton) . 54
—— —— —— (H. A. Lediard) 193
—— soft, of the uterus, showing early cystic degeneration, removed by hysterectomy (J. H. Aveling) . . 270

Navel cord of a young infant, note on a condition observed in the (John Williams) 199
Needles, surgical, and holder (G. G. Bantock) . . 271
Neugebauer (F. L.), specimens illustrating spondylolisthesis (shown) 84

Obituary notices of deceased Fellows.
Spaull, Barnard, F.R.C.S., Hammersmith . . 42
Blease, Thomas, Altrincham 42
Murray, Jardine, Brighton 42
Schofield, Robert H. A., M.B. Oxon., F.R.C.S., Shanghai . 43
Davison, Francis, L.R.C.P., Saffi, Morocco . . 43
Harper, Philip, F.R.C.S., Cambridge Street, W. . 44
Hecker, Carl, M.D., Munich 45
Depaul, Jean Henri, M.D., Paris . . . 48
Sims, Marion, M.D., New York . . . 49
Os uteri, on the corroding ulcer of the (John Williams) . 60
Ovarian cysts, double dermoid (C. H. Carter) . . 86
—— —— multilocular (W. Walter) . . . 148
—— —— papillomatous (J. Knowsley Thornton) . . 4
—— multilocular, cysts, with uterine fibroids and broad-ligament cyst (J. Knowsley Thornton) . . . 55
—— tumour (W. A. Duncan) 229
—— —— with twisted pedicle (R. Barnes) . . . 59
—— —— multilocular, ruptured secondary cyst in the wall of (A. Doran) 118
Ovaries, note on the involution of the puerperal uterus in the absence of the (John Williams) . . . 203
—— prolapsed adherent (W. S. A. Griffith) . . 270
Ovary, cystic disease of, in its earliest stage (R. Barnes) . 157
—— dermoid cyst of the (Heywood Smith) . . 57

PAGE

Papillomatous ovarian cyst (J. Knowsley Thornton) . 4
Parturition, see *Placenta.*
—— case of extra-uterine gestation, delivery of living child per vaginam, removal of placenta (J. H. Mathieson) . 132
—— post-partum avulsion of the uterus (J. Hopkins Walters) 233
—— ruptured uterus (F. H. Champneys) . . . 329
—— rupture of the uterus and vagina (P. Horrocks) . 260
—— upon the benefits derived from the induced current during (W. Kilner) 93
Pedicle, twisted, in ovarian tumour (R. Barnes) . . 59
Pedunculated fibroid (W. A. Duncan) . . . 186
Pelvis, mollities ossium of (W. S. A. Griffith) . . 230
Pessary for retroversion and prolapse (C. Godson) . . 272
—— wooden ring, worn for six years, with the lumen entirely filled up by deposit (P. Horrocks) . . . 54
Placenta, adherent (R. Boxall) 58
—— cyst of (R. Boxall) 59
—— removal of, in a case of extra-uterine gestation (J. H. Mathieson) 132
Placentæ and membranes from a case of triplets (P. Horrocks) 160
Playfair (W. S.), *Motion* of condolence on the death of B. R. Wheatley 2
—— hæmatocele, the result of malignant disease (shown) . 6
—— note on the absorption, with ultimate recovery, of thrombosis of the pulmonary artery in the puerperal state . 162
—— *Remarks* in reply 170
—— —— in discussion on E. S. Tait's paper on puerperal temperatures 18
—— —— in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition . 109
—— —— on P. Horrocks's specimen of dicephalous fœtus . 327
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 337
Polypus, fibrous (C. Godson) 328
Potter (J. B.), *Report* as Treasurer for 1883 . . 28
—— fibro-cellular tumour of labium (shown) . . 228
Pregnancy, case of extra-uterine gestation, delivery of living child per vaginam, removal of placenta (J. H. Mathieson) 132
—— deciduous membrane of, probably from the unimpregnated half of a double uterus (W. F. Cleveland) . . 117
—— fœtal revolutions (Matthews Duncan) . . . 171

PAGE

Pregnancy, on extensions or retroflexions of the fœtus, especially of the trunk, during (Matthews Duncan and J. B. Hurry) 206
—— on the severe or so-called "uncontrollable" vomiting of (Graily Hewitt) 273
—— strong mental emotion affecting pregnant women as a cause of idiocy in the offspring (A. Mitchell) . . 124
—— tubal fœtation removed by abdominal section (Sydney Jones) 268
Priestley (Wm. O.), *Motion* of condolence on the death of B. R. Wheatley 3
—— chronic papillary inflammation of the vulva (drawing shown) 156
—— *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 19
—— —— in discussion on John Williams' paper on the corroding ulcer of the os uteri 78
Prolapse of the vagina, the relation of, to hernia, illustrated by two pedigrees (Alban Doran) 88
Puerperal temperatures, some observations on (E. S. Tait) . 8
—— uterus, note on the involution of, in the absence of the ovaries (John Williams) 203
Pulmonary artery, note on absorption of thrombosis of the, in the puerperal state (W. S. Playfair) . . . 162
Pyosalpinx (E. Malins) 228

Receipts and Expenditure of the Society . . . 28
Report (audited) of the Treasurer for 1883 . . . 28
—— *of the Hon. Librarian for* 1883 . . . 30
—— *of the Chairman of the Board for the Examination of Midwives* 31
Report of Committee on specimens of Spondylolisthesis shown by F. L. Neugebauer, on April 2nd, 1884 . . . 186
—— —— *deciduous membrane of pregnancy shown by W. F. Cleveland on May 7th,* 1884 331
Retroflexions or extensions of the fœtus, especially of the trunk, during pregnancy (Matthews Duncan and J. B. Hurry) . 206
Revolutions, fœtal (Matthews Duncan) . . . 171
Routh (C. H. F.), *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 16
—— —— in discussion on John Williams's paper on the corroding ulcer of the os uteri 81

PAGE

ROUTH (C. H. F.), *Remarks* in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition 112
—— —— in discussion on C. Godson's specimen of large fibrous polypus 329
Rupture of the uterus and vagina (P. Horrocks) . 119, 260
Ruptured uterus (F. H. Champneys) . . . 329
—— secondary cyst in the wall of a multilocular ovarian tumour (A. Doran) 118

Schofield, Robert H. A., M.B. Oxon., F.R.C.S., of Shanghai, obituary notice of 43
Schroeder's operation, cancerous uterus removed by (W. A. Duncan) 27
—— extirpation of the uterus (E. Malins) . . . 148
Septicæmia in a case of fibro-cystic myoma of uterus (H. A. Lediard) 193
SHATTOCK (S. G.), anatomical description of a specimen (No. 170) of spondylolisthesis in University College Museum . 151
—— and GRAILY HEWITT, specimen of spondylolisthesis (shown) 149
Sims, Marion, M.D., of New York, obituary notice of . 49
SMITH (Heywood), dermoid cyst of the ovary (shown) . 57
—— electric speculum (shown) 179
—— fibro-cystic disease of uterus; hysterectomy (shown) . 58
—— *Remarks* in discussion on G. G. Bantock's specimens of fibroid tumours of the uterus 122
—— —— in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring 131
—— —— in discussion on E. Malins' case of extirpation of the uterus 148
—— —— on Sydney Jones' specimen of tubal fœtation, removed by abdominal section 269
—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 347
SMITH (Noble), *Report* on specimens of spondylolisthesis shown by F. L. Neugebauer . . . 186, 190
—— *Remarks* in discussion on Graily Hewitt's and G. G. Shattock's specimen of spondylolisthesis . . 155
Spaull, Barnard, F.R.C.S., of Hammersmith, obituary notice of 42
Speculum, electric (Heywood Smith) . . . 179

PAGE
Spondylolisthesis (F. L. Neugebauer) . . . 84
—— (Graily Hewitt and S. G. Shattock) . . . 149
—— anatomical description of a specimen of, in University College Museum (S. G. Shattock) . . . 151
Surgical needles and holder (G. G. Bantock) . . 271

Tait (E. S.), some observations on puerperal temperatures . 8
—— *Remarks* in reply 22
Tait (Lawson), see *Jones*.
Temperatures, puerperal, some observations on (E. S. Tait) . 8
Thornton (J. Knowsley), fibro-cystic myoma of the uterus (shown) 54
—— hæmato-salpinx, papillomatous ovarian cyst; abdominal section (shown) 4
—— uterine fibroids and fibro-cystic tumour; hysterectomy (shown) 3
—— —— with multilocular ovarian cysts and broad ligament cyst (shown) 55
—— vascular fibro-myoma of the uterus (shown) . . 269
—— *Remarks* on C. H. Carter's specimens of double dermoid ovarian cysts 87
Thrombosis of the pulmonary artery, note on the absorption of, in the puerperal state (W. S. Playfair) . . 162
Transfusion apparatus, portable (Wm. Walter) . . 182
Triplets, placentæ and membranes from a case of (P. Horrocks) 160
Tubal fœtation, removed by abdominal section (Sydney Jones). 268
Tumours, angioma of labium (Matthews Duncan) . . 118
—— broad-ligament cysts (E. Malins) . . . 228
—— cyst of placenta (R. Boxall) 59
—— —— removed from the vulva (A. L. Galabin) . . 56
—— cystic disease of ovary in its earliest stage (R. Barnes) . 157
—— —— degeneration of the cervix uteri (H. Gervis) . 144
—— dermoid cyst of the ovary (Heywood Smith) . . 57
—— double dermoid ovarian cysts (C. H. Carter) . . 86
—— fibrocellular, of labium (J. B. Potter) . . . 228
—— fibro-cystic disease of uterus; hysterectomy (Heywood Smith) 58
—— —— myoma of uterus (J. Knowsley Thornton) . . 54
—— —— and uterine fibroids; hysterectomy (J. Knowsley Thornton) 3
—— fibroid of the uterus (G. G. Bantock) . . . 119
—— fibro-myoma of uterus (W. Walter) . . . 326

PAGE

Tumours, fibrous polypus (C. Godson) . . . 328
—— hæmatocele, the result of malignant disease (W. S. Playfair) 6
—— hæmato-salpinx, papillomatous ovarian cyst; abdominal section (J. Knowsley Thornton) . . . 4
—— multilocular ovarian cyst (W. Walter) . . 148
—— —— ruptured secondary cyst in the wall of (A. Doran) . 118
—— ovarian (W. A. Duncan) 229
—— —— with twisted pedicle (R. Barnes) . . . 59
—— pedunculated fibroid (W. A. Duncan) . . . 186
—— soft myoma of the uterus showing early cystic degeneration, removed by hysterectomy (J. H. Aveling) . . 270
—— uterine cyst (W. S. A. Griffith) 229
—— uterine fibroids and fibro-cystic tumour; hysterectomy (J. Knowsley Thornton) 3
—— —— with multilocular ovarian cysts and broad-ligament cyst (J. Knowsley Thornton) 55
—— vascular fibro-myoma of the uterus (J. Knowsley Thornton) 269

Ulcer, on the corroding, of the os uteri (John Williams) . 60
Umbilical cord of a young infant, note on a condition observed in the (John Williams) 199
Uterine cyst (W. S. A. Griffith) 229
—— fibroids and fibro-cystic tumour; hysterectomy (J. Knowsley Thornton) 3
—— —— with multilocular ovarian cysts and broad-ligament cyst (J. Knowsley Thornton) 55
Uterus, see *Hysterectomy.*
—— extirpation of (E. Malins) 148
—— inversion of (J. A. Mansell Moullin) 158
—— involution of the puerperal, in the absence of the ovaries (John Williams) 203
—— post-partum avulsion of the (J. Hopkins Walters) . 233
—— ruptured (F. H. Champneys) 329
—— double, the unimpregnated half of a deciduous membrane of pregnancy from (W. F. Cleveland) . . . 117
—— —— with deciduous membrane (W. F. Cleveland) . 184
—— and vagina, rupture of (P. Horrocks) . . 119, 260
—— cancerous, removed by Schroeder's operation (W. A. Duncan) 27
—— cystic degeneration of the cervix uteri (H. Gervis) . 144

PAGE
Uterus, fibro-cystic disease of; hysterectomy (Heywood Smith) 58
—— —— myoma of (J. Knowsley Thornton) . , 54
—— —— —— (H. A. Lediard) 193
—— fibro-myoma of (W. Walter) 326
—— fibroid tumours of the (G. G. Bantock) . . 119
—— soft myoma of the, showing early cystic degeneration, removed by hysterectomy (J. H. Aveling) . . 270
—— vascular fibro-myoma of (J. Knowsley Thornton) . 269
—— cervix uteri, case of cystic degeneration of the (H. Gervis) 144
—— os uteri, on the corroding ulcer of the (John Williams) . 60
Vagina, the relation of prolapse of, to hernia, illustrated by two pedigrees (Alban Doran) . . . 88
—— and uterus, rupture of (P. Horrocks) . . 119, 260
Vascular fibro-myoma of the uterus (J. Knowsley Thornton) . 269
Vesical calculus (C. Godson) 181
Vomiting of pregnancy, on the severe or so-called "uncontrollable" (Graily Hewitt) 273
Vulva, chronic papillary inflammation of the (W. O. Priestley) 156
—— cyst removed from the (A. L. Galabin) . . 56

Walter (Wm.), fibro-myoma of uterus (shown) . . 326
—— multilocular ovarian cyst (shown) . . . 148
—— portable transfusion apparatus (shown) . . 182
—— *Remarks* in discussion on W. Kilner's paper upon the benefits derived from the induced current during parturition 110
—— —— in discussion on C. Godson's specimen of large fibrous polypus 328
—— —— in discussion on F. H. Champneys' specimen of ruptured uterus 330
Walters (J. Hopkins), on post-partum avulsion of the uterus, with a case, followed by recovery . . . 233
—— *Remarks* in reply 266
West (Charles), *Remarks* in discussion on A. Mitchell's paper on strong mental emotion affecting pregnant women as a cause of idiocy in the offspring . . . 130
Wheatley, B. R., *Motion* of condolence on the death of . 2
Williams (John), *Report* on deciduous membrane of pregnancy shown by W. F. Cleveland . . . 331
—— on the corroding ulcer of the os uteri . . . 60
—— *Remarks* in reply 81

PAGE

WILLIAMS (John), note on a condition observed in the navel cord of a young infant 199

—— —— on the involution of the puerperal uterus in the absence of the ovaries 203

—— *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 16

WILLIAMS (Wynn), *Remarks* in discussion on E. S. Tait's paper on puerperal temperatures 21

—— —— in discussion on Graily Hewitt's paper on the severe or so-called "uncontrollable" vomiting of pregnancy . 342

WILTSHIRE (Alfred), *Remarks* in discussion on W. S. Playfair's paper on the absorption of thrombosis of the pulmonary artery in the puerperal state 170

—— —— in discussion on W. F. Cleveland's specimen of double uterus with deciduous membrane . . . 185

OBSTETRICAL SOCIETY.

ADDITIONS TO THE LIBRARY

BY DONATION OR PURCHASE DURING THE YEAR 1884.

Presented by

Ahlfeld (F.). Berichte und Arbeiten aus der geburtshülflich-gynaekologischen Klinik zu Giessen, 1881—1882, mit Beiträgen von F. Marchand. See *Reports.*
plates and woodcuts, large 8vo. Leipzig, 1883 — Author.

Alexander (William). The Treatment of backward displacements of the Uterus and of Prolapsus Uteri by the new method of shortening the Round Ligaments. 8vo. Lond. 1884

Bantock (George Granville). On the Use and Abuse of Pessaries. Second edition.
woodcuts, 8vo. Lond. 1884 — Ditto.

Barbour (A. H. Freeland). Spinal Deformity in relation to Obstetrics. *plates*, 4to. Edin. 1884 — Purchased.

Barnes (Fancourt). See *Robert Barnes:* System of Obstetric Medicine and Surgery.

Barnes (Robert) and Fancourt Barnes. A System of Obstetric Medicine and Surgery, theoretical and clinical, for the Student and Practitioner, vol. i.
woodcuts, 8vo. Lond. 1884 — Authors.

Barthez (E.) et A. Sanné. Traité clinique et pratique des Maladies des Enfants par F. Rilliet et E. Barthez ; troisième édition, Tome 1.
8vo. Paris, 1884 — Purchased.

Béraud (B. J.). Atlas of Surgical and Topographical Anatomy. Translated by Robert Thomas Hulme.
4to. Lond. 1867 — Exor. of Mr. H. M. Steele.

Presented by

BIDDER (A.). Zwei durch die Art der Rückbildung resp. Heilung bemerkenswerthe Fibromyome des Uterus bei zwei Schwestern. 8vo. Berlin, 1884 — Purchased.

BIDDER (E.). Ueber Vorder- und Hinterscheitellagen. *plate*, 8vo. Berlin, 1884 — Ditto.

BOISSARD (Al.). Étude sur les troubles de la Miction se rattachant aux divers états physiologiques et pathologiques de l'Utérus. 8vo. Paris, 1883 — Ditto.

BURKART (R.). Zur Behandlung schwerer Formen von Hysterie und Neurasthenie. ('Volkmann's Sam.,' 245.) 8vo. Leipzig, 1884 — Ditto.

Catalogue of Books added to the Radcliffe Library during 1883. 4to. Oxford, 1884 — Sir H. W. Acland, K.C.B.

——— of the International Health Exhibition Library. 8vo. Lond. 1884 — Secretary.

Division I. Health.
„ II. Education.

CREDÉ (Carl S. F.). Die Verhütung der Augenentzündung der Neugeborenen (Ophthalmoblennorrhœa neonatorum) der häufigsten und wichtigsten Ursache der Blindheit. 8vo. Berlin, 1884 — Purchased.

DARWIN (G. H.). Leucorrhœa; or, the "Whites." A Treatise upon the most common of the morbid discharges peculiar to Women. 8vo. Lond. 1884 — Author.

DEBRAND (Louis). Des Rétrécissements du conduit Vulvo-vaginal. 8vo. Paris, 1884 — Purchased.

DE FRESNAY (L. Hamon). Essai pratique sur la Méthode ocytocique Accouchement rapide. 8vo. Paris, 1884 — Ditto.

Dictionnaire Encyclopédique des Sciences Médicales. — Ditto.

1re série, Tom. XXIX, 2me partie, XXX.
2me „ „ XIX, 2me partie, XX.
3me „ „ XIII, XIV.
4me „ „ X, 1e partie.

DORAN (Alban H. G.). Clinical and Pathological Observations on Tumours of the Ovary, Fallopian Tube, and Broad Ligament. *woodcuts*, 8vo. Lond. 1884 — Author.

——— Incipient Cystic Disease of the Parovarium and Broad Ligament. ('Trans. Path. Soc.,' 1883.) *plate*, 8vo. Lond — Ditto

Presented by

DRUITT (Robert). The Surgeon's Vade mecum; a Manual of Modern Surgery. Ninth edition. *woodcuts*, 12mo. Lond. 1865 — Exor. of Mr. H. M. Steele.

DUMAS (Léon). De la dilatation præ-fœtale de la Vulve comme moyen de prévenir les Déchirures du Périnée. 8vo. Montpellier, 1883 — Author.

DUNCAN (J. Matthews). On Sterility in Woman; being the Gulstonian Lectures delivered in the Royal College of Physicians in February, 1883. 8vo. Lond. 1884 — Ditto.

ERCOLANI (G. B.). The Reproductive process: its Histology, Physiology, and Pathology; translated by H. O. Marcy. Second edition. 8vo. (*and Atlas*, 4to. 1881) Boston, 1884 — Purchased.

EUSTACHE (G.). Étude sur les Lochies dans l'état normal et les états pathologiques. (Ext. des 'Archives de Tocologie.') 8vo. Paris, 1883 — Author.

FEHLING (H.). Ueber neuere Kaiserschnitt-Methoden. ('Volkmann's Sam.,' 248.) 8vo. Leipzig, 1884 — Purchased.

FOWLER (James Kingston). On the Origin of Anæmic Murmurs. 8vo. Lond. 1884 — Author.

FRITSCH (Heinrich). Die Krankheiten der Frauen. Zweite Auflage. *woodcuts*, 8vo. Braunschweig, 1884 — Ditto.

GALLARD (T.). Pathologie des Ovaires. Leçons cliniques sur la Menstruation et ses troubles. *woodcuts*, 8vo. Paris, 1885 — Purchased.

GASSICOURT (Cadet de). Traité clinique des Maladies de l'Enfance: Diphthérie; Affections Cérébrales. *Temperature diagrams*, vol. iii. 8vo. Paris, 1884

GODSON (Clement). Porro's Operation. (Reprint from 'Brit. Med. Jl.') 4to. Lond. 1884 — Author.

HACHE (Maurice). Étude clinique sur les Cystites. 8vo. Paris, 1884 — Purchased.

HART (D. Berry). *Atlas* of Female Pelvic Anatomy. 4to. Edin. 1884 — Ditto.

HEGAR (Alfred). Die Ruckenmarksdehnung. ('Volkmann's Sam.,' 239.) 8vo. 1884 — Ditto.

HOFMEIER (M.). Die Myomotomie. *woodcuts*, 8vo. Stuttgart, 1884 — Ditto.

Presented by

HOGG (Jabez). The Microscope: its History, Construction and Application. *plates*, 8vo. Lond. 1867 — Exor. of Mr. H. M. Steele.

HULME (Robert Thomas). See *Béraud's* Atlas of Surgical and Topographical Anatomy (translated).

JALLET (A.). Précis d'Accouchements à l'usage des Étudiants et des Sages-femmes. 8vo. Paris, 1884 — Purchased.

KEHRER (Ferd. Adolph.). Beiträge zur klinischen und experimentellen Geburtskunde und Gynäkologie. Band ii, Heft 2. *plate*, 8vo. Giessen, 1884 — Ditto.

KÖLLIKER (A.). Zur Entwicklung des Auges und Geruchsorganes menschlicher Embryonen. *plates*, 8vo. Würzburg, 1883 — Ditto.

LAHS (—). Vorträge und Abhandlungen zur Tokologie und Gynäkologie. *plates*, 8vo. Marburg, 1884 — Ditto.

LITZMANN (Carl Conrad Theodor). Die Geburt bei engem Becken. large 8vo. Leipzig, 1884 — Ditto.

MACDONALD (Angus), see *Scoresby-Jackson's* Note-book of Materia Medica, &c.

MARCHAND (F.), see *Ahlfeld.*

MARCY (Henry O.), see *Ercolani's* Histology and Pathology of Reproduction (translated).

MARTIN (August). Pathologie und Therapie der Frauenkrankheiten. *woodcuts*, 8vo. Wien, 1885 — Ditto.

MARTINEAU (—). Leçons sur la Vaginite, non Blennorrhagique, recueillies par Henri Lormand. (Extrait de la 'France médicale,' tom. ii, 1883.) 8vo. Paris, 1884 — Ditto.

MURPHY (James). Three Cases of Puerperal Eclampsia treated with Pilocarpine. 8vo. Newcastle-on-Tyne, 1884 — Author.

NEALE (Richard). The Medical Digest, or Busy Practitioner's Vade-mecum. Second edition. 8vo. Lond. 1882 — Purchased.

NEUGEBAUER (Franz). Spondylolisthesis 8vo. 1881-84 — Author.

OLSHAUSEN (Robert). Klinische Beiträge zur Gynäkologie und Geburtshülfe. *woodcuts*, 8vo. Stuttgart, 1884 — Purchased.

PLAYFAIR (W. S.). A Treatise on the Science and Practice of Midwifery. Fifth edition. *plates*, 2 vols. 8vo. Lond. 1884 — Author.

PLOSS (H.). Das Weib in der Natur- und Völkerkunde. 2 vols. 8vo. Leipzig, 1885 — Purchased.

Presented by

PREYER (W.). Specielle Physiologie des Embryo. *plates and woodcuts*, 8vo. Leipzig, 1885 Purchased.

REINL (Carl). Die Wellenbewegung der Lebensprocesse des Weibes. ('Volkmann's Sam.,' 243.) 8vo. Leipzig, 1884 Ditto.

RICHARDSON (Benjamin Ward), see Journals, the *Asclepiad.*

ROGER (Henri). Recherches cliniques sur les Maladies de l'Enfance. Tome ii. 8vo. Paris, 1883 Ditto.

SANNÉ (A.), see *Barthez.*

SCHAUTA (Friedrich). Grundriss der operativen Geburtshilfe für praktische Ärzte und Studirende. *woodcuts*, 8vo. Wien, 1885 Ditto.

SCHULTZE (Bernhard Sigmund). Lehrbuch der Hebammenkunst; siebente Auflage. *woodcuts*, 8vo. Leipzig, 1884 Author.

——— Unser Hebammenwesen und das Kindbettfieber ('Volkmann's Sam.,' 247). 8vo. Leipzig, 1884 Purchased.

SCHWARZ (E.). Zur Behandlung der Fehlgeburten. ('Volkmann's Sam.,' 241). 8vo. Leipzig, 1884 Ditto.

SCORESBY-JACKSON (R. E.). Note-book of Materia Medica, Pharmacology and Therapeutics; with a Supplement by Angus Macdonald. 12mo. Edin. 1867 Exor. of Mr. H. M. Steele.

SIREDEY (F.). Les Maladies Puerpérales, étude clinique. *diagrams*, 8vo. Paris, 1884 Purchased.

SMITH (Eustace). A Practical Treatise on Disease in Children. 8vo. Lond. 1884 Ditto.

SMITH (Henry Fly). The Handbook for Midwives. Second edition. *woodcuts*, sm. 8vo. Lond. 1884 Ditto.

TANNER (Thomas Hawkes). A Manual of the Practice of Medicine. Fourth edition. 18mo. Lond. 1861 Exor. of Mr. H. M. Steele.

VALENTA (Alois). Lethal endender Kaiserschnitt nach Porro ob osteomalacischem Becken. — Kind lebend. (fr. Betz's 'Memorabilien,' 1884, Heft 5.) 8vo. ——— Author.

VOLKMANN'S Sammlung klinische Vorträge:

239. *Hegar*, Die Ruckenmarksdehnung.
241. *Schwarz*, Zur Behandlung der Fehlgeburten.
243. *Reinl*, Die Wellenbewegung der Lebensprocesse des Weibes.
245. *Burkart*, Zur Behandlung schwerer Formen von Hysterie und Neurasthenie.
247. *Schultze*, Unser Hebammenwesen und das Kindbettfieber.
248. *Fehling*, Ueber neuere Kaiserschnitt-methoden.

Presented by

West (Charles). Lectures on the Diseases of Infancy and Childhood. Seventh edition.
8vo. Lond. 1884 Author.

Wolveridge (James). Speculum Matricis; or, the Expert Midwives' Handmaid, 1669. (Manuscript copy.)
4to. Purchased.

TRANSACTIONS.

American Gynecological Society—
Transactions, vols. vii, viii.
8vo. Phila. 1883, 1884 Society.

American Medical Association—
Transactions, vol. xxxiii. 8vo. Philad. 1882 Association.

Clinical Society of London—
Transactions, vols. xvi, xvii.
8vo. Lond. 1883, 1884 Society.

Leipzig—Gesellschaft für Geburtshülfe in Leipzig, Mittheilungen, 1883. 8vo. Leipzig, 1884 Ditto.

Lyon—Société des Sciences Médicales, &c. Mémoires et Comptes-rendus, tome xxi, 1881.
8vo. Lyon, 1882 Ditto.

Medical (Royal) and Chirurgical Society—
Transactions, vol. lxvii. 8vo. Lond. 1884 Ditto.

Obstetrical Society (Edinburgh)—
Transactions, Session 1883-84, vol. ix.
8vo. Edin. 1884 Ditto.

Smithsonian Institution—
Annual Report of the Board of Regents for 1882.
8vo. Washington, 1884 Institution.

JOURNALS.

Asclepiad (The). A Book of Original Research and Observation in the Science, Art, and Literature of Medicine, by B. W. Richardson, M.D. Vol i–
8vo. Lond. 1884– Author.

Boston Medical and Surgical Journal, vol. cx–
4to. Boston, 1884– Exchange.

Calendar of University College, London, for 1884–5.
8vo. Lond. 1884 Council of the College.

REPORTS.

	Presented by
HOSPITALS—Guy's Hospital Reports; third series, vol. xxvii. 8vo. Lond. 1884.	Hospital staff.
——— Middlesex Hospital Reports for 1881, 1882. 2 vols. 8vo. Lond. 1884	Ditto.
——— St. Bartholomew's Hospital Reports; vol. xix. 8vo. Lond. 1883	Ditto.
——— St. Thomas's Hospital Reports; new series, vol. xii, with General Index, vols. i—xii. 8vo. Lond. 1883	Ditto.
——— University College Hospital Reports for 1882. 8vo. Lond. 1884	Council of the College.
LYING-IN INSITUTIONS — Germany: Berichte und Arbeiten aus der geburtshülflich—gynaekologischen Klinik zu Giessen, 1881–1882, von F. Ahlfeld, mit Beiträgen von F. Marchand. *plates and woodcuts*, large 8vo. Leipzig, 1883	Author.

MUSEUM.

Braun's Hook and Forceps as used at the Vienna Clinic.	Dr. Tuchmann.

PRINTED BY J. E. ADLARD, BARTHOLOMEW CLOSE.